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...

(b) The area on the premises where junk or inoperable vehicles are kept, other than indoors, shall be enclosed with a nontransparent, vertical wall, hedge or fence of a minimum height of eight feet measured from ground level. For towing service storage yards, the area where junk or inoperable vehicles are kept, other than indoors, shall be enclosed with a nontransparent, vertical wall, hedge or fence of a minimum height of six feet measured from ground level, provided that, however, if motor vehicles are stacked upon one another, the fence, wall or hedge for the towing service storage yard shall be a minimum height of eight feet. Such screening structure shall consist of natural vegetation, plantings or fences or walls of a uniform type. Where the business premises abuts a navigable waterway, no screening structure shall be required along the shoreline of the waterway. Where the business premises abuts property used for residential, office and institutional or commercial purposes, no junk or inoperable vehicles shall be piled higher than the top of the screening fence or structure. All entrances and exits shall be closed at all times except when ingress or egress to or from the enclosed area is actually being made.

...

(Code 1970, § 5-3(e)—(g); Ord. of 8-25-70; Ord. of 1-27-76; Ord. of 3-18-86; Ord. No. 93-O-023, § 5-3, 2-23-92; Ord. No. 92-O-148, § 5-3, 10-13-92; Ord. No. 96-O-144, 9-10-96)

**Chapter 26 ENVIRONMENT**  
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**Sec. 26-54. Definitions.**

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Best management practice* or *BMP* shall have the same meaning as in section 26-343.

*Clearing* means any activity which removes the vegetative ground cover including but not limited to root mat removal or topsoil removal.

*Runoff volume* means the volume of water that runs off the site from a prescribed storm event.

*Stormwater management plan* shall have the same meaning as in section 26-343.

*Transporting* means any moving of earth materials from one place to another, other than such movement incidental to grading, when such movement results in destroying the vegetative ground cover either by tracking or the buildup of earth materials to the extent that erosion and sedimentation will result from the soil or earth materials over which such transporting occurs.

(Code 1970, § 8A-4; Ord. of 5-18-76; Ord. of 1-10-78; Ord. of 2-26-85; Ord. of 2-28-89; Ord. No. 91-O-194, § 8A-4, 10-22-91; Ord. No. 93-O-021, § 8A-4, 2-23-93; Ord. No. 01-O-092, 9-25-01; Ord. No. 07-O-185, 12-11-07; Ord. No. 09-O-098, 8-11-09; Ord. No. 10-O-098, 7-27-10; Ord. No. 14-O-061, 5-27-14; Ord. No. 15-O-064, 5-12-15)

Cross reference— Definitions and rules of construction generally, § 1-2.

## **ARTICLE VI. EXCAVATIONS**

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#### **Sec. 26-244. Operation and performance standards.**

Borrow pit excavations shall be conducted in compliance with the following:

...

(10) Planting and roadside landscaping. All portions of the excavation site which are not to be covered by water as an end-use shall be covered with soil and vegetation in accordance with the planting plan submitted to and approved by the director under subsection (2) of this section. Unless otherwise permitted by city council, existing trees and vegetation along public street frontage shall be preserved and maintained during excavation and restoration activities.

...

(Ord. No. 93-O-054, § 9-6, 4-20-93; Ord. No. 93-O-099, § 9-6, 7-27-93; Ord. No. 93-O-218, § 9-6, 12-21-93; Ord. No. 94-O-195, 9-27-94; Ord. No. 06-O-143, 11-28-06; Ord. No. 09-O-098, 8-11-09)

## **ARTICLE VII. STORMWATER MANAGEMENT**

### **DIVISION 1. GENERAL**

#### **Sec. 26-343. Definitions.**

In addition to the definitions set forth in 9VAC25-870-10 of the Virginia Stormwater Management Program (VSMP) Regulations, as amended, which are expressly adopted and incorporated herein by reference, the following words and terms used in this article have the following meanings unless otherwise specified herein.

*Best management practice* or *BMP* means schedules of activities, prohibitions of practices, including both structural and nonstructural practices, maintenance procedures, and other management practices to prevent or reduce the pollution of surface waters and groundwater systems from the impacts of land-disturbing activities.

*Clearing* means the removal of trees and brush from the land but shall not include the ordinary mowing of grass or exemptions under subsection 26-347(2) of this chapter.

*Stabilization* means the prevention of soil movement by any of various vegetative and/or structural means.

*Stormwater* means precipitation that is discharged across the land surface or through conveyances to one or more waterways and that may include stormwater runoff, snow melt runoff, and surface runoff and drainage.

Stormwater management means one or both of the following:

(a) The quantitative control of stormwater runoff through a system of vegetative and structural measures that control the increased volume and rate of surface runoff caused by manmade changes to the land; and/or

(b) For qualitative control, a system of vegetative, structural, and other measures that reduce or eliminate pollutants that might otherwise be carried by surface runoff.

*Stormwater management plan* means a document(s) containing material describing methods for complying with the requirements of section 26-348 of this article.

*Vegetation* means all plant growth, including trees, shrubs, vines, ferns, mosses and grasses.

*Virginia Stormwater Management Program* or *VSMP* means a program approved by the State Board after September 13, 2011, that has been established by a locality to manage the quality

and quantity of runoff resulting from land-disturbing activities and shall include such items as local ordinances, rules, permit requirements, annual standards and specifications, policies and guidelines, technical materials, and requirements for plan review, inspection, enforcement, where authorized in this article, and evaluation consistent with the requirements of this article and associated regulations.

(Ord. No. 14-O-060, 5-27-14)

## **ARTICLE IX. CHESAPEAKE BAY PRESERVATION AREA DISTRICT**

### **Sec. 26-515. Definitions.**

The following words and terms used in this article have the following meanings, unless the context clearly indicates otherwise. Words and terms not defined in this ordinance but defined elsewhere in this City Code or the city zoning ordinance shall be given the meanings set forth therein.

*Agricultural lands* means those lands used for the planting and harvesting of crops or plant growth of any kind in the open; pasture; horticulture; dairying; floriculture; or raising of poultry and/or livestock. The term shall not include property on which qualified silvicultural activities are conducted.

*Best management practices* or *BMPs* means a practice or a combination of practices that is determined by the director of development and permits, or designee, to meet or exceed the water quality objectives set out below and designed in accordance with the Chesapeake Public Facilities Manual.

*Buffer* or *buffer area* means an area of natural or established vegetation managed and preserved to protect other components of the resource protection area and state waters from significant degradation due to land disturbance or development.

*Diameter at breast height* or *DBH* means the diameter of a tree measured outside the bark at a point four and one-half feet above the ground, as determined by the director of development and permits, or designee.

*Dripline* means a vertical projection to the ground surface from the furthest lateral extent of a tree's leaf canopy. When a tree's leaf canopy has been altered by trimming, pruning or breakage, the dripline shall be determined by the director of development and permits, or designee.

*Impervious cover* means a surface composed of any material that significantly impedes or prevents natural infiltration of water into the soil. Impervious surfaces include, but are not limited to, roofs, buildings, structures, other than fences, streets, roads, drives parking areas, sidewalks and any concrete, asphalt or compacted gravel surface, as well as the area of any swimming pool, as measured by water surface, decks and concrete surfaces.

*Land disturbance in the CBPA district* means, for purposes of this article only, any activity upon land which causes, contributes to, or results in the removal or covering of the vegetation upon such land, or the disturbance of unvegetated soils, including but not limited to, clearing, dredging, filling, grading or excavating. The term shall not include minor activities such as home gardening, individual landscaping and home maintenance, as determined by the city manager's designee; nor shall it include bona fide silvicultural activities, which are exempt from the provisions of this article. Bona fide agricultural operations on agricultural lands located within the CBPA district shall be subject to separate standards, set out below, from those applicable to other land-disturbing activities.

*Nontidal wetlands* means those wetlands other than tidal wetlands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and

that under normal circumstances, support a prevalence of vegetation typically adapted for life in saturated soil conditions, as defined by the U. S. Environmental Protection Agency pursuant to section 404 of the Federal Clean Water Act, as amended, and as further described in 33 CFR 328.3b, as amended, as determined by the city manager's designee in accordance with the CBPA specifications manual.

*Resource protection area or RPA* means that component of the CBPA district comprised of tidal wetlands; tidal shores; non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow; a one-hundred-foot vegetation buffer and such other areas that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation to the quality of state waters.

*Tidal wetlands* means vegetated and nonvegetated wetlands as defined in section 28.2-1300 of the Code of Virginia, as amended.

*Tree group or tree stand* means a group of two or more trees which have trunks or canopies in close proximity to one another.

(Ord. No. 03-O-160, 12-9-03; Ord. No. 05-O-095, 7-20-05; Ord. No. 09-O-098, 8-11-09; Ord. No. 10-O-098, 7-27-10; Ord. No. 14-O-062, 5-27-14)

#### **Sec. 26-516. Designation criteria.**

...

(b) The resource protection area (RPA) includes all tidal wetlands; nontidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow; shorelines; and a 100-foot vegetated buffer around each such feature and around all water bodies with a perennial flow. The buffer area is designed to retard runoff, prevent erosion and filter non-point source pollutants from runoff. The buffer area is also designed to achieve a level of 75 percent reduction in sediments and 40 percent reduction in nutrients.

(c) The RPA, as depicted generally on the CBPA map, includes:

- (1) Tidal wetlands;
- (2) Non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or water bodies with perennial flow;
- (3) Tidal shores;
- (4) Such other lands determined by city council to meet the provisions of this article and to be necessary to protect the quality of state waters; and
- (5) A vegetated buffer area of not less than 100 feet in width located adjacent and landward of the components listed in subsections (1) through (4) above, and along both sides of any water body with perennial flow. The buffer area shall constitute the landward component of the RPA, notwithstanding the presence of permitted uses, encroachments, or the approved clearing of vegetation in compliance with this article.

...

(Ord. No. 03-O-160, 12-9-03)

#### **Sec. 26-518. Administrative approvals.**

...

(f) The city manager's designee may determine whether existing vegetation can be removed from the RPA buffer under the provisions of subsection 26-520(b)(7)c.1.

...

(Ord. No. 03-O-160, 12-9-03; Ord. No. 04-O-070, 5-11-04; Ord. No. 05-O-095, 7-20-05; Ord. No. 12-O-077, 7-24-12)

#### **Sec. 26-519. Permitted development in the resource protection area (RPA).**

...

(g) Property upon which bona fide agricultural activities are being conducted, including but not limited to, crop production, pasture, and dairy and feedlot operations, or property

otherwise defined as agricultural lands in this article, shall be permitted in the RPA subject to the following conditions:

...

(3) Where the permitted agricultural land uses, including any exempt silvicultural activities, within the buffer cease, a full 100-foot vegetated buffer shall be established. The established buffer shall be subject to the buffer performance standards set forth in subsection 26-520(b)(7) below.

(Ord. No. 03-O-160, 12-9-03; Ord. No. 05-O-095, 7-20-05; Ord. No. 08-O-110, 8-12-08; Ord. No. 09-O-098, 8-11-09; Ord. No. 10-O-098, 7-27-10; Ord. No. 12-O-077, 7-24-12; Ord. No. 14-O-062, 5-27-14)

### **Sec. 26-520. General performance standards for the RPA, RMA and IDA.**

(a) The city council has determined that natural ground cover, especially woody vegetation, is most effective in holding soil in place and preventing site erosion. Natural vegetation, with its adaptability to local conditions without the use of harmful fertilizers or pesticides, serves the important function of filtering stormwater runoff. Additionally, minimizing impervious cover enhances rainwater infiltration and effectively reduces stormwater runoff. In order to minimize the potential for erosion and sedimentation, reduce nutrients and toxics, and increase rainwater infiltration, the following performance standards are hereby established and shall apply to all land disturbance, development and redevelopment activity in the CBPA district (RMA, RPA and IDA). The purpose and intent of the following standards is to set forth minimum requirements for all such activities and prevent a net increase in nonpoint source pollution from new development; reduce nonpoint source pollution from existing development; and reduce nonpoint source pollution from the use of agricultural lands.

(b) General performance standards for land disturbance, development and redevelopment in the CBPA district are as follows:

(1) Limitations on land disturbance. Land disturbance shall be limited to the area necessary to provide for the proposed use, building, structure or development, as determined by the appropriate approval authority. At a minimum, the following shall apply:

a. All developments equal to or exceeding 2,500 square feet of development area shall include an approved erosion and sediment control plan in the plan of development submitted under section 26-524 and an approved stormwater plan submitted under section 26-348.

b. The limits of land disturbance, including clearing or grading, shall be defined by a construction footprint shown on an approved plan. These limits shall also be physically delineated on the development site by fencing or other device required by the designated approval authority.

c. Ingress and egress during construction shall be limited to one access point shown on the approved plan, unless otherwise approved by the city manager's designee based on a clear showing of necessity.

(2) Preservation of existing vegetation. Existing vegetation shall be preserved in the CBPA district to the maximum extent practicable. The following minimum standards apply:

a. Existing woody vegetation, including, but not limited to, trees over one and a half (1½) inches in diameter at breast height (DBH), shall be preserved outside the construction footprint. Diseased trees or trees weakened by age, storm, fire or other injury may be removed, after approval by the director of development and permits, or designee, subject to the minimum canopy coverage requirements in section 26-520(b)(3).

b. Clearing shall be allowed only to provide approved and necessary access, positive site drainage, water quality best management practices (BMPs), and the installation of utilities subject to approval of the city manager's designee and meeting the minimum canopy coverage requirements in subsection 26-520(b)(3).

c. Prior to clearing or grading, approved protective barriers shall be erected five feet outside of the dripline of any tree or stand of trees to be preserved. These

protective barriers shall remain in place throughout all phases of construction. The storage of equipment, materials, debris or fill shall not be allowed within the areas protected by the barrier.

- (3) Canopy requirements. In order to meet CBLAB requirements for a woody vegetated 100-foot wide RPA buffer and to satisfy CBLAB general performance standards for the RMA, the following minimum landscaping requirements shall apply:
  - a. The RPA landscaping requirement is a minimum 50 percent tree canopy coverage, calculated in accordance with the CBPA Specifications Manual.
  - b. The RMA landscaping requirement is a minimum 20 percent tree canopy coverage for single-family residential lots, with a cap of 20 large canopy trees per lot, and 15 percent for townhomes and multifamily residential, calculated in accordance with the CBPA Specifications Manual.
  - c. Landscaping requirements for commercial or industrial sites within the RMA is a minimum ten percent tree canopy coverage, calculated in accordance with the CBPA Specifications Manual and PFM.
  - d. Removal of existing vegetation in the CBPA shall be limited to the approvals permitted in subsections 26-520(b)(2) and 26-520(b)(7)c.
- (4) Limitation on impervious covers. All land disturbance, development and redevelopment shall minimize impervious cover so as to promote infiltration of stormwater into the ground. Techniques for minimizing impervious cover and implementing low impact design are included in the CBPA Specifications Manual and PFM.
- (5) On-site sewage treatment system requirements.
  - a. All on-site sewage treatment systems not requiring a Virginia Pollutant Discharge Elimination System (VPDES) permit shall:
    1. Install and maintain a plastic filter in the outflow pipe from the septic tank to filter solid material from the effluent while sustaining adequate flow to the drainfield to permit normal use of the septic system. Such a filter must comply with standards established in the Sewage Handling and Disposal Regulations administered by the state department of health; or
    2. Submit documentation every five years to the city department of health, certified by an operator or on-site soil evaluator licensed or certified under Chapter 23 (§ 54.1-2300 et seq.) of Title 54.1 of the Virginia Code as being qualified to operate, maintain or design on-site sewage systems, that the system has been inspected, is functioning properly, and the tank does not need to have the effluent pumped. Such certification shall indicate the date by which pump out must be accomplished in the future.
  - b. For new construction, on-site sewage treatment systems not requiring a VPDES permit shall also provide a reserve sewage disposal site with a capacity at least equal to that of the primary sewage disposal site. This reserve sewage disposal site requirement shall not apply to any lot or parcel recorded prior to October 1, 1989, if the lot or parcel is not sufficient in area to accommodate a reserve sewage disposal site, as determined by the city department of health.
- (6) Stormwater runoff requirements.
  - a. For any land disturbance, development or redevelopment, stormwater runoff shall be controlled by the use of best management practices (BMPs) that meet the technical criteria and administrative requirements for land-disturbing activities in accordance with the requirements set forth in the PFM, and the requirements for long-term maintenance of control measures outlined under section 26-349.
  - b. The approved BMPs are designed, constructed and maintained to prevent any increase in the non-point source pollution run-off.
  - c. Runoff pollution loads must have been calculated and BMPs selected for the express purpose of controlling non-point source pollution. All pollution loading

calculations must be in accordance with the City Code and the PFM and approved by the director of development and permits, or designee.

d. Except as provided in section 26-346, the subdivider or developer must prepare a stormwater management plan in accordance with the section 26-348 and the requirements set forth in the PFM.

(7) RPA buffer area requirements.

a. To minimize the adverse effects of land-disturbance, development and redevelopment activities on the RPA, state waters and aquatic life, a 100-foot wide buffer area of woody vegetation shall be retained if present or established if it does not exist with a minimum tree canopy coverage of 50 percent, calculated in accordance with the CBPA Specifications Manual.

b. The buffer area shall be located adjacent to and landward of other RPA components and along both sides of any water body with perennial flow. The 100-foot buffer area shall be designated as the landward component of the RPA. The 100-foot buffer area shall be deemed to achieve a 75 percent reduction of sediments and a 40 percent reduction of nutrients. The 100-foot buffer area shall not be subject to encroachment except as follows:

1. Agricultural lands as provided in subsection 26-520(b)(7)d.

2. When the preservation of the 100-foot buffer area will result in the loss of a reasonable buildable area on a lot or parcel recorded prior to January 21, 1992, the CBPA review committee may permit encroachments in the buffer area in accordance with the following criteria:

A. Encroachments into the buffer area shall be the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities, as determined by the CBPA review committee;

B. Where practicable, a vegetated area that will maximize water quality protection, mitigate the effects of the buffer encroachment, and equal the area of encroachment into the buffer area shall be established elsewhere on the lot or parcel; and

C. The encroachment may not extend into the seaward 50 feet of the buffer area.

3. Encroachment into the landward 50 feet of the 100-foot buffer area for lots created by recordation of a valid subdivision plat after January 21, 1992 and prior to March 1, 2002, may be permitted through approval by the CBPA review committee, provided that the landowner is able to show:

A. The encroachment into the landward 50 feet of the 100-foot buffer has been approved by the director of development and permits, or designee, as part of a valid final site plan or a final subdivision plan approved prior to March 1, 2002;

B. If the prior approval of the encroachment included the use of a best management practice (BMP), the BMP continues to function effectively or will be re-established, repaired, and maintained as necessary to ensure that it will function effectively, as determined by the director of development and permits, or designee;

C. The encroachment is the minimum necessary to achieve a reasonable buildable area for a principal structure and necessary utilities, as determined by the CBPA review committee;

D. Where practicable, a vegetated area greater than or equal to the area of encroachment will be established elsewhere on the lot to maximize water quality protection and mitigate the effects of the encroachment, and

E. The encroachment does not extend into the seaward 50 feet of the buffer area.



- F. The criteria in A. and B. above may be satisfied by a written memorandum from the director of development and permits, or designee, that prior approval of the buffer encroachment has been given based on the location of appropriate best management practices landward of the 100-foot buffer area as necessary to collectively achieve water quality protection, pollutant removal and water resource conservation at least the equivalent of the full 100-foot buffer area and that where established, the approved BMP continues to function effectively.
4. Encroachment into the 100-foot buffer area in the IDA to the extent permitted under section 26-521.
  5. Exceptions, exemptions and nonconforming waivers granted under sections 26-524 through 26-526.
- c. The 100-foot vegetated buffer area shall be continuously maintained to meet each of the following additional performance standards:\
1. In order to maintain the functional value of the 100-foot buffer area, existing vegetation shall be retained. The city manager's designee may authorize removal of existing vegetation in the RPA only to provide for reasonable sightlines, access paths, general wood lot management, and best management practices, including those that prevent upland erosion and concentrated flows of storm water, pursuant to the following:
    - A. Trees may be pruned or removed as necessary to provide for sightlines and vistas, provided that any trees removed are replaced to provide 50 percent tree canopy coverage as required in section 26-520(b)(3)a.
    - B. Access paths shall be constructed and surfaced so as to effectively control erosion.
    - C. Dead, diseased or dying trees or shrubbery and noxious weeds (such as Johnson grass, kudzu, and multiflora rose), may be removed and thinning of trees may be allowed with the approval of the director of development and permits, or designee, provided that any trees removed shall be replaced to provide 50 percent tree canopy coverage as required in subsection 26-520(b)(3)a.
    - D. For shoreline erosion control projects, trees and woody vegetation may be removed, provided that necessary control techniques are employed, and appropriate vegetation established to protect or stabilize the shoreline in accordance with the best available practices and applicable permit conditions or requirements.
  2. Prior to any land disturbing activity, a protective barrier, consisting of TP-1 safety fencing, shall be installed around the perimeter of the required 100-foot buffer area and shall remain in place during the entire construction period. Perimeter protective barriers shall only be required if the limits of land disturbance are entirely within the RMA. If RPA disturbance is approved, protective barriers shall be placed in designated locations to protect the portions of the RPA that are not to be disturbed.
  3. Natural growth of understory and groundcover shall also be preserved to form tropic layers of vegetation.
- d. On agricultural lands, the 100-foot buffer area shall be managed to prevent runoff and appropriate measures taken to prevent noxious weeds from invading the vegetation. Encroachments into the agricultural 100-foot buffer area may be permitted by the city manager's designee only as follows:
1. Agricultural activities may encroach into the landward 50 feet of the 100-foot buffer when at least one agricultural best management practice which, in the opinion of the Virginia Dare Soil and Water Conservation District Board, addresses the more predominant water quality issue on the adjacent land erosion control or nutrient management is being

implemented on the land adjacent to the buffer, provided that the combination of the undisturbed buffer area and the BMP achieves water quality protection, pollutant removal, and water resource conservation at least the equivalent of the 100-foot buffer area. If nutrient management is identified as the predominant water quality issue, a nutrient management plan, including soil tests, must be developed consistent with the Virginia Nutrient Management Training and Certification Regulations administered by the state department of conservation and recreation.

2. Agricultural activities may encroach within the landward 75 feet of the 100-foot buffer area when agricultural BMPs which address erosion control, nutrient management, and pest chemical control, are being implemented on the land adjacent to the buffer. The erosion control practices must be sufficient to prevent erosion from exceeding the soil loss tolerance level, referred to as "T," as defined in the "National Soil Survey Handbook" of November 1996, in the "Field Office Technical Guide" of the U. S. Department of Agriculture Natural Resource Conservation Service. A nutrient management plan, including soil tests, must be developed, consistent with the Virginia Nutrient Management Training and Certification Regulations administered by the state department of conservation and recreation. In conjunction with the remaining buffer area, this collection of BMPs shall be presumed to achieve water quality protection at least the equivalent of that provided by the 100-foot buffer area.\

3. The 100-foot buffer area is not required adjacent to agricultural drainage ditches having perennial flow if at least one best management practice (BMP) is installed which, in the opinion of the Virginia Dare Soil and Water Conservation District Board, addresses the more predominant water quality issue on the land adjacent to the ditch, either by erosion control or nutrient management.

(Ord. No. 03-O-160, 12-9-03; Ord. No. 05-O-095, 7-20-05; Ord. No. 09-O-098, 8-11-09; Ord. No. 10-O-098, 7-27-10; Ord. No. 14-O-062, 5-27-14)

**Sec. 26-522. Relationship of CBPA standards to other ordinances.**

(a) This article shall supplement, and where more stringent, supersede other applicable ordinances, regulations and policies of the city. The following shall apply to all land disturbance, development and redevelopment in the CBPA district, notwithstanding anything to the contrary in the other portions of the City Code and city zoning ordinance.

...

(2) The following notes shall be included on all final subdivision plats and final site plans for property in the CBPA district:

a. All land disturbance, uses, development and redevelopment in the Chesapeake Bay Preservation Area District are required to retain an undisturbed vegetated 100-foot buffer area around RPA features, such as wetlands, shorelines and along waterbodies with perennial flow;

...

d. Canopy coverage as required by subsection 26-520(b)(3) including the natural growth of understory and groundcover, shall be continuously preserved and maintained. Dead, diseased and dying trees may be removed and replaced as approved by the director of development and permits, or designee, subject to the canopy coverage requirements.

...

...

(Ord. No. 03-O-160, 12-9-03; Ord. No. 05-O-095, 7-20-05; Ord. No. 09-O-098, 8-11-09; Ord. No. 10-O-098, 7-27-10; Ord. No. 14-O-062, 5-27-14)

**Sec. 26-523. Water quality impact assessments.**

...  
(b) A WQIA is required for:

...  
(2) A WQIA may be required for any other land disturbance, development or redevelopment in the CBPA district that warrants such assessment because of the unique characteristics of the site or intensity of the proposed activity. The determination of whether a proposed activity warrants a WQIA shall be made by the city manager's designee upon consideration of the following factors:

a. The existing state of the site, including topography, hydrology, soils, vegetative ground cover, wetlands, or manmade features of the site;

...  
(f) A WQIA shall include a plan, survey or plat drawn to scale which shows the following:

...  
(4) Trees to be preserved or installed to meet tree canopy coverage requirements in section 26-520(b)(3).

...  
(Ord. No. 03-O-160, 12-9-03; Ord. No. 05-O-095, 7-20-05; Ord. No. 09-O-098, 8-11-09)

**Sec. 26-530. Enforcement, violations, penalties.**

...  
(d) If specific problems are identified pertaining to agricultural activities on agricultural lands which are causing pollution of a nearby RPA feature or violating performance standards pertaining to the 100-foot vegetated buffer area, the enforcement agent, in cooperation with the Virginia Dare Soil and Water Conservation District, shall implement a compliance schedule binding on the landowner and shall require corrective action consistent with that schedule. This schedule shall ensure environmental protection while taking into account the seasons and other temporal considerations so that the probability for successfully implementing the corrective measures is the greatest.

...  
(Ord. No. 03-O-160, 12-9-03; Ord. No. 12-O-077, 7-24-12)

Editor's note— Ord. No. 12-O-077, adopted July 24, 2012, renumbered the former section 26-528 as section 26-530. The historical notation has been preserved for reference purposes.

**ARTICLE X. OPEN SPACE AND AGRICULTURE PRESERVATION PROGRAM**

**Sec. 26-574. Definitions.**

The words and terms used in this article shall have the following meaning:

*Agricultural lands* means those lands used for the planting and harvesting of crops or plant growth of any kind in the open; pasture; horticulture; dairying; floriculture; or raising of poultry and/or livestock. Such uses must be lawfully established under the city zoning ordinance.

*Agricultural use* means the bona fide and lawful use of property for the production of crops, animal or fowl, including but not limited to, the production of fruits, vegetables, honey, grains, meat, poultry and dairy products; the raising of livestock and poultry; and the production and harvest of products from horticultural, silvicultural or aquacultural activity.

*Open space* means any privately owned parcel or batch of land consisting of at least three (3) acres, which is used or preserved for:

- (1) Park or recreational purposes,
- (2) Conservation of land or other natural resources,
- (3) Historic or scenic purposes, or

- (4) Conservation of wetlands as that term is defined in § 62.1-44.3 of the Code of Virginia, as amended.
- (5) Compatibility with U.S. Navy operations in the Fentress Airfield overlay district.

*Open space and agriculture preservation (OSAP) ranking system or system* means the formula by which applications for the sale of development rights are ranked in order of priority of acquisition of such rights, to be used when more than one application is under consideration for the same funds.

*Preservation easement* means a nonpossessory interest in land, perpetual in duration, pursuant to which the exercise of development rights on the subject property is prohibited or expressly limited.

*Significant timber harvest* means a merchantable harvest for the commercial market. The term does not include minor harvests for such things as firewood, poles, posts, blind material or greenery, or a surgical removal of trees posing insect infestation problems.

(Ord. No. 03-O-023, 2-25-03; Ord. No. 05-O-153, 11-22-05; Ord. No. 06-O-075, 6-27-06)

## **ARTICLE XI. NORTHWEST RIVER WATERSHED PROTECTION DISTRICT**

### **Sec. 26-607. Requirements for commercial and industrial uses.**

(a) *Run-off control permit.* Commencing on September 1, 2005, it shall be unlawful for any person to engage in new or expanded commercial or industrial uses in the Northwest River Watershed Protection District, or to allow run-off from new or expanded commercial or industrial uses conducted beyond city boundaries but within the Northwest River Watershed, without first obtaining a run-off control permit from the department of public utilities.

...

(c) *Run-off analysis.* The run-off analysis shall be performed by a professional engineer licensed by the state. At a minimum, the analysis shall address the following:

- (1) Description of the proposed use or development, or expansion of an existing use or development, including the location and extent of impervious surfaces and a description of the topographic, hydrologic and vegetative features on the site, including without limitation, all water bodies.

...

(Ord. No. 05-O-077, 6-21-05)

## **Chapter 50 PARKS, RECREATION AND TOURISM**

### **ARTICLE I. IN GENERAL**

#### **Sec. 50-3. Park property.**

...

(c) No person shall dig or remove any beach sand, whether submerged or not, nor any soil, rock, stones, trees, shrubs or plants, down-timber, pine needles or other wood or materials, or make any excavation by tool, equipment, blasting or other means or agency.

...

(Code 1970, § 17B-3; Ord. of 10-12-76; Ord. No. 92-O-149, § 17B-3, 10-13-92)

#### **Sec. 50-4. - Trees and shrubbery; monuments, fountains and fences.**

(a) No person shall damage, cut, carve, transplant or remove any tree or plant or injure the bark or pick the flowers or seeds of any tree or plant. No person shall dig in or otherwise disturb grass areas or in any other way injure or impair the natural beauty or usefulness of any area.

...

(c) No person shall tie or hitch a horse or other animal to any tree or plant.

(Code 1970, § 17B-4; Ord. of 10-12-76; Ord. No. 92-O-149, § 17B-4, 10-13-92)

## **Chapter 62 SOLID WASTE**

### **ARTICLE I. IN GENERAL**

#### **Sec. 62-1. Definitions.**

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*Trash* means loose items such as general household discards, grass clippings, small tree branches, cardboard boxes, etc.

*Yard solid waste* means grass clippings, leaves, tree trimmings, shrubbery trimmings and other small quantities of organic debris, free from dirt and rocks, normally coming from an occupied premises with a dwelling unit.

(Code 1970, § 21-1; Ord. of 4-14-81; Ord. of 2-24-87; Ord. No. 00-O-023, 2-27-01; Ord. No. 03-O-095, 8-12-03; Ord. No. 09-O-099, 8-11-09; Ord. No. 11-O-082, 7-26-11; Ord. No. 14-O-093, 7-22-14; Ord. No. 15-O-116, 9-8-15)

Cross reference— Definitions and rules of construction generally, § 1-2.

#### **Sec. 62-2. Accumulation of weeds and debris and growth of grass or similar vegetation above certain height—Prohibited.**

...

(f) The requirements of this section regarding the growth of grass and similar vegetation shall have no application in the following areas of the city:

...

(3) Woodlands and wetlands regardless of the zoning classification of such area. For purposes of this exemption, the term "woodlands" shall include productive and nonproductive forest lands and other areas which are used primarily to promote and preserve the growth of trees and seedlings. The term "wetlands" shall have the definition assigned to it in section 26-515 of this Code.

...

(Code 1970, § 21-2; Ord. of 3-13-72; Ord. of 4-14-81; Ord. of 1-12-89; Ord. of 12-18-90; Ord. No. 92-O-017, § 21-2, 2-25-92; Ord. No. 02-O-144, 11-26-02; Ord. No. 11-O-053, 6-14-11; Ord. No. 14-O-086, 7-8-14; Ord. No. 15-O-116, 9-8-15)

Cross reference— Environment, ch. 26; health and sanitation, ch. 38.

State Law reference— Similar provisions, Code of Virginia, § 15.2-901.

#### **Sec. 62-8. Public nuisances; trees, shrubs and other plants.**

(a) The city council finds that the neglect of trees, shrubs and other plants on any land or premises within the city, other than those used for agricultural purposes, can result in conditions that cause a plant or portion thereof to hang precariously over a public right-of-way, thereby constituting a danger to the health, safety and welfare of the general public.

(b) Any tree, shrub or other plant or a portion thereof located on any land or premises within the city, other than those used for agricultural purposes, which hangs precariously over a public right-of-way constitutes a danger to the health, safety or welfare of the general public, as determined by the city manager or designee, shall constitute a public nuisance.

(c) Any public nuisance as specified in this section which is located on city-owned property shall be pruned, removed, or otherwise treated at the direction of the city manager or designee in whatever manner required to cause the abatement of the nuisance within 30 days after its discovery by the city. This 30 day time limit shall be extended when a local emergency is declared pursuant to Chesapeake City Code § 2-624.

(d) Any public nuisance as specified in this section which is located on any land or premises within the city, except for property used for agricultural purposes, shall be pruned, removed or otherwise treated by the property owner or his agent in whatever manner required to abate the nuisance as determined by the City Manager or his designee.  
(Ord. No. 10-O-035, 4-27-10)

**Sec. 62-9. Notice.**

(a) In the event of a public nuisance as described in section 62-8 existing on land or premises within the city, the city manager or designee shall cause a written notice to be personally delivered or sent by mail to the last known street or post office address to the owner or such other person who is in control of the property. Proof of mailing or delivering the notice shall be sufficient evidence that the notice was served, and the date of mailing or delivery, as the case may be, shall be the date of service. If the last known street or post office address of such person is unknown or the notice so mailed is returned undelivered by the post office, then service of the notice shall be made by posting the notice on the property on which the condition exists. Proof of posting shall be sufficient evidence that the notice was served, and the date of posting shall be the date of service. Such notice shall describe the species of tree, shrub or other plant which has been declared to be a public nuisance, its location on the property, the reason for the declaration of a nuisance and shall state the actions that the property owner may undertake to abate the nuisance and give the owner 30 days from the date of the letter to abate. If during that 30 day time period the City declares a local emergency pursuant to Chesapeake City Code § 2-624, the time limit for the abatement shall be extended on an individual basis at the discretion of the city manager or his designee.

(b) If, in the opinion of the city manager or designee, the condition of any tree, shrub or other plant or a portion thereof constitutes an emergency which involves an imminent danger to human life or health, notice which is reasonable under the circumstances shall be given to the owner or such other person who is in control of the property. In case the owner or such other person who is in control of the property cannot be found, or if such individual fails to comply with the notice, the city manager or designee may promptly enter upon the property and take steps he deems necessary to abate the danger, with such assistance and at such cost as he deems appropriate.

(Ord. No. 10-O-035, 4-27-10)

**Sec. 62-11. Entry on property.**

The city manager and/or his designee(s) shall have the authority to enter upon private property at reasonable times and in a reasonable manner whereon there is located a tree, shrub, plant or portion thereof that is reasonably believed to create a public nuisance because it hangs dangerously over a public right-of-way.

(Ord. No. 10-O-035, 4-27-10)

**Sec. 62-60. Yard trimmings and grass.**

(a) All yard trimmings, grass, etc., must be bundled or containerized to be collected by the city as trash. Containers shall include manual dumped plastic or metal cans and clear plastic bags, not exceeding 35 gallons in size. No more than 30 yard waste bags not exceeding 35 gallons in volume may be collected at any one residence per week. No more than 50 bags not exceeding 35 gallons in volume may be collected at any one residence per week during the months of November and December.

(b) Tree limbs, hedge trimmings and branches shall be bundled in lengths of not more than four feet and placed for collection in the same location as garbage and refuse containers. Each branch shall be cut separately. Limbs or logs shall be not greater than six inches in diameter. Such articles will be collected; however, the maximum limit shall be as specified in subsection 62-58(d) of this chapter.

(Code 1970, § 21-12; Ord. of 8-9-71; Ord. of 2-24-87; Ord. No. 00-O-023, 2-27-01; Ord. No. 11-O-082, 7-26-11)

**Sec. 62-86. Definitions.**

For the purposes of this article and article II of this chapter, the words and phrases below shall have the following meaning.

*Organic waste* means a type of solid waste consisting of organic materials including, but not limited to, processed and unmanipulated manures, grass clippings, leaves, brush, tree prunings, logs, tree stumps and other yard, landclearing or vegetative wastes.

**Sec. 62-92. - Same—Setback, design and operational restrictions.**

Unless otherwise stated herein, all solid waste management facilities shall comply with the following:

...

(7) Screening.

a. Solid waste management facilities shall be adequately screened or buffered within required setbacks from all adjacent properties and public streets and rights-of-way. Buffering shall, at a minimum, meet the landscape requirements set forth in the city zoning ordinance. In the case of sanitary and debris landfills, a 50-foot natural buffer consisting of existing mature trees shall be preserved to screen the landfill from adjacent properties zoned or used for residential purposes. The location and adequacy of such natural buffers shall be determined by city council in the issuance of a conditional use permit, or by the director of development and permits, or designee, for lawfully existing landfills. Where natural buffers do not exist, or are deemed insufficient to protect adjacent residential properties, the landfill shall be screened from such properties with a 50-foot buffer along property lines, said buffer to be vegetated with no less than nine large trees (as defined in the Chesapeake Landscape Specification Manual), and 75 shrubs per 100 linear feet of buffer area. Such trees and shrubs shall be placed throughout the width of the buffer in a manner approved by the city council in the issuance of use permits or by the director of development and permits, or designee, for lawfully existing landfills. In cases where it is not physically possible to locate a newly established 50-foot buffer along property lines, a planting plan showing alternative locations for the buffer shall be submitted to city council for final determination. All required buffers, whether consisting of existing vegetation, newly planted vegetation, or combination approved by the city council or the director of development and permit, or designee, as the case may be, shall be preserved and maintained by the owner or operator of the landfill; provided that, however, the owner or operator shall not be held responsible for replacement of any portion of a buffer destroyed due to acquisition of land within the buffer by an entity having the power of eminent domain.

b. In addition to the requirements in subsection a. above, city council may impose further buffering requirements, whether consisting of existing natural or vegetation or newly planted vegetation, as a condition of the use permit or at any time during the operation of a solid waste management facility where city council finds that additional screening is necessary to protect surrounding properties from identified adverse impacts generated by the facility or the operation thereof. Such enhanced buffering shall not exceed a width of 50 feet, which shall be in addition to the buffer requirements set out in subsection a. above. The additional buffer area shall be placed in locations deemed appropriate by city council, and shall contain vegetation either preserved, newly planted, or both, consisting of nine large trees, (as defined in the Chesapeake Landscape Specification Manual), and 75 shrubs per 100 linear feet of buffer area. The required vegetation shall be located throughout the width of the buffer in a manner approved by city council and may, upon the direction of city council, be supplemented by a three-foot berm or six-foot fence. Such additional landscaping shall be preserved and maintained by the owner or operator of the solid waste management facility; provided that, however, the owner or operator shall not be held responsible for the replacement of any

portion of a buffer destroyed due to the acquisition of land within the buffer by an entity having the power of eminent domain.

## **Chapter 66 STREETS AND SIDEWALKS**

### **ARTICLE II. INSTALLATIONS, TREE CUTTINGS OR OTHER WORK AFFECTING STREETS**

#### **DIVISION 1. GENERALLY**

##### **Sec. 66-106. Cutting or trimming trees.**

No tree or shrub on any street shall be cut or trimmed, unless a permit therefor shall have been obtained from the director of development and permits or designee. Such cutting, trimming or spraying shall be permitted only when fully justified in the public interest and then only in a manner prescribed in the permit issued therefor.

(Ord. of 10-22-63, § 39; Code 1970, § 24-26; Ord. No. 09-O-100, 8-11-09)

#### **DIVISION 2. PERMITS**

##### **Sec. 66-121. Required.**

Except as otherwise provided in this article, it shall be unlawful for any person to perform any work in connection with the erection, construction, removal, relocation or maintenance of any surface, overhead or underground installation or to cut or trim trees or to place signs if such work, cutting, trimming, spraying or placing it on, under or over affects a street, until such person shall have obtained a permit therefor in accordance with this article.

(Ord. of 10-22-63, § 16; Code 1970, § 24-29)

## **Chapter 70 SUBDIVISIONS**

### **ARTICLE I. IN GENERAL**

#### **Sec. 70-1. Definitions.**

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

...

Each lot depicted on or created by a resubdivision plat, and each lot created by vacation of lot lines by recordation of a deed, shall be subject to the public improvement requirements of this chapter and of article 18 of the zoning ordinance at the time that an application is filed for development of such lot, including without limitation, the payment of pro rata, dedication of right-of-way, and installation of public improvements to serve the lot or lots shown on the resubdivision plat or created by vacation of lot lines by deed.

(3) Municipal acquisitions other than right-of-way. The municipal acquisition or acceptance of real property in fee simple for governmental purposes other than right-of-way improvements, provided that no more than one additional lot is depicted on the plat. Each lot depicted on or created by a plat for municipal acquisitions other than right-of-way, including any residual parcel, shall be subject to applicable requirements in this chapter for public improvements and pro rata payments upon development of such lot.

(4) Municipal right-of-way acquisitions. The municipal acquisition or acceptance of real property in fee simple for purposes of right-of-way improvements and extensions, provided that no additional lots, including any residual parcel, are created or depicted on the acquisition plat. For purposes of this definition, the division of an existing lot or parcel by the right-of-way acquisition shall not in itself constitute the creation of an additional lot.

(5) Conservation divisions. The division of property located wholly within an A-1 agricultural district or C-1 conservation district, or combination thereof, for purposes of preserving open space or environmentally sensitive lands, including without limitation, the creation, restoration and preservation of wetlands, provided that:



- a. All parcels created by the division of land meet minimum lot area requirements in the zoning ordinance;
- b. The plat depicting the division of land contains a note stating that the division is for the sole purpose of creating one or more lots to be used for conservation purposes only and that no building permits or certificates of occupancy will be issued for such conservation areas, other than as may be required for permitted passive recreational uses deemed incidental to and compatible with conservation objectives, and amenities related to such approved passive recreational uses, such as trails, boardwalks and benches;
- c. The planning director determines that adequate assurance of perpetual conservation has been given in the form of a permanent conservation or open space easement, or by participation in a local, state or federal program that will provide for the perpetual preservation of such lots, including without limitation, programs under which the property is to be dedicated to a local, state or federal agency for conservation purposes. Evidence of perpetual conservation, whether by deed of easement, agreement, deed of conveyance or other instrument, shall be recorded in the clerk's office of the circuit court of the city prior to, or concurrent with, the approval and recordation of the conservation division, and shall contain provisions that perpetually restrict the use of the property for any purpose other than conservation and that prohibit all construction or land disturbance on the property, other than amenities directly associated with approved passive recreational activities or land-disturbing activities required to establish, restore or enhance wetlands;
- d. No new or extended streets, public easements or public facilities are required to serve the property as divided; and
- e. The division of land does not result in more than one lot that will not be used for conservation purposes. Any such lot not used for conservation purposes shall conform with all requirements of this section and the city's zoning ordinance.

...

(Code 1970, § 25-1; Ord. of 1-19-82, § 2; Ord. of 11-20-84; Ord. of 10-22-91; Ord. No. 98-O-154A, 10-20-98; Ord. No. 99-O-156 (alternate version 9-30-99), 12-21-99; Ord. No. 02-O-083, 7-16-02; Ord. No. 05-O-131, 10-18-05; Ord. No. 09-O-006, 1-27-09)

Cross reference— Definitions and rules of construction generally, § 1-2.

### **ARTICLE III. DESIGN STANDARDS**

#### **Sec. 70-91. Preservation of natural features and amenities.**

(a) In general.

(1) Existing natural features which would add value to development or to the city as a whole, such as trees, watercourses, historic spots, and similar irreplaceable and beneficial assets, shall be protected wherever practical in the design of the development. Special consideration should be given to specimen and historic trees and specimen vegetation.

(2) This section shall apply to apartment and townhouse developments and office and commercial developments adjacent to established single-family residential developments. Bona fide farming, forestry projects, and commercial tree businesses are exempt from the regulations contained in this section.

(b) Definitions. The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

*Historic tree* means any tree which has been specifically designated by the city council to have been closely associated with an historical event, place, or age.

*Person knowledgeable* means a person, because of education and training, having the skills necessary to determine types and characteristics of trees, including planting and protection

methods. Such person shall meet the experience criteria required for the Virginia Nurserymen Certification.

*Specimen trees and shrubs* means any woody plant which, due to circumference, height, or location, is deemed to be an unusual example of its species. Such woody plants deemed to be specimens will generally qualify as a "record" or "champion" tree under the criteria of the Virginia Forestry Association and will be certified as such or have certification pending. A specimen tree or shrub may also qualify as such on the basis of location, being any woody plant at the extremity of its natural range as defined by the Old Dominion University botany department.

*Tree* means any self-supporting woody plant growing upon the earth which usually produces one main trunk measuring no less than four inches in diameter at 4½ feet from the ground, with a minimum overall height of 15 feet, and which produces a more or less distinct and elevated head with many branches.

(c) *Site analysis.* In conjunction with the preparation of a preliminary or final plat, the developer/owner shall cause to be made, by a person knowledgeable, a site analysis showing all of the natural features and amenities present on the property. This analysis and resulting preliminary plat shall consider the following:

- (1) The adaptability and compatibility of existing trees with proposed development, including a consideration that additional fill material for construction activities will be necessary.
- (2) The presence of specimen and/or historic trees and shrubs.
- (3) The presence of rare or endangered vegetation which may be relocated by transplanting.
- (4) The adequacy of proposed protection measures.
- (5) The numbers, health and vigor of trees located in areas designated for retention.
- (6) The proposed removal of trees shall be based on the fact that such trees are damaged or diseased, that their presence would unduly restrict the use or enjoyment of the property, that such trees are too close to proposed building or utilities, or would unduly impede drainage.
- (7) Alternative landscaping measures which would protect and preserve such amenities.

(d) *Review of plats.* Information derived from subsection (c) of this section shall form the basis for such conservation, replanting and landscaping plans for the project as required by the planning commission in its review of the developer/owner's preliminary and final plats. The planning commission may grant variances or other modification's from the requirements of this section provided that the purpose of same is preserved.

(e) *Additional plat requirements.*

- (1) The total number of trees to be retained or planted by the developer/owner shall, at a minimum, be equal to one per unit for townhouse developments and one per four units for apartment projects. Healthy, natural trees retained shall be considered to be two planted trees. At such time as 50 percent of the development has been constructed, at least 30 percent of the items shown on the approved landscaping plan shall have been completed. The final ten percent of such development shall not be occupied until the total landscaping plan has been completed.
- (2) The side and/or rear yards of business and office and institutional zoned areas, as prescribed by section 5-3 of the city zoning ordinance, which abut residentially zoned property shall be utilized as a planted buffer, including fencing as well as natural or planted growth.
- (3) Replanted trees shall be at least two inches in caliper.

(f) *Enforcement.*

- (1) This section shall be enforced by the director of the department of planning or designee.
- (2) After approval of a final plat, a landscaping permit shall be obtained by the developer/owner from the department of planning. A fee as specified in section 70-191

must be paid for the permit. Upon final completion of required landscaping, the developer/owner shall coordinate a field inspection by a representative of the department of planning to determine compliance with the approved plat.  
(Code 1970, § 25-21.1; Ord. of 5-20-86; Ord. of 7-18-89)

## **ARTICLE VI. CLUSTER DEVELOPMENT SUBDIVISIONS**

### **Sec. 70-203. Existing resources and site analysis map.**

...  
(c) *Content.* The existing resources and site analysis map shall conform with the following criteria:

...  
(5) Vegetative cover on the property, including cultivated land, permanent grassland, meadow, pasture, old field, hedgerow, woodlands, wetlands, trees with a caliper in excess of 15 inches, and the actual canopy line of existing trees and woodlands. Vegetative types shall be described by plant community, relative age, and condition.

...  
(Ord. No. 04-O-080, 5-18-04)

### **Sec. 70-212. Conservation land design standards.**

(a) Prioritized list of resources to be conserved. The design of conservation land in any cluster development shall reflect the standards set forth in this article and section 6-2200 of the zoning ordinance. Designated conservation land shall incorporate the following resources if they occur on the parcel (listed in order of significance):

...  
(7) Hedgerows, groups of trees, and large individual trees of botanic, historical or aesthetic significance.

...  
(Ord. No. 04-O-080, 5-18-04)

### **Sec. 70-213. Other cluster design requirements.**

...  
(b) *Street trees.* Canopy trees as defined in section 19-600 of the zoning ordinance are one of the most important amenities of a cluster development. Where possible, canopy trees shall be planted in "tree lawns" at least four feet wide located between the sidewalk and the curb or edge of right-of-way pavement. Utilities shall be located either within the tree lawn area or in a special utility easement located beyond the sidewalk. The final plan may address barriers, such as bio-barriers, that will direct root systems away from public utilities. Plant materials that are easily maintained or removed shall be used in utility easements. Prior written consent from the public utilities department will be required for landscaping located in a water or sewer easement. Street trees shall require a performance guarantee to assure replacement for 18 months after planting. The city may invoke this performance guarantee if the director of development and permits, or designee, determines that a tree is diseased, dying or dead.

...  
(Ord. No. 04-O-080, 5-18-04; Ord. No. 05-O-148, 11-22-05; Ord. No. 08-O-136, 10-21-08; Ord. No. 10-O-128, 10-19-10)

## **Chesapeake, Virginia - Zoning**

### **ARTICLE 3. INTERPRETATION AND DEFINITIONS**

#### **§ 3-403. Definitions.**

The following definitions shall be used in the interpretation and administration of this ordinance. The definitions of various terms as presented do not necessarily represent the same definitions as may be found for the same terms in other chapters of the City Code.

*Buffer.* An area within the property or site generally adjacent to and parallel with the property line, either consisting of natural existing vegetation or created by the use of trees, shrubs, fences and/or berms designed to limit the view of and/or sound from the site to adjacent sites or properties.

*Screen.* A structure or planting consisting of fencing, berms and/or vegetation established or maintained for the purpose of limiting or obstructing the view of or sound from an object or use on a site or limiting or obstructing the view or sound from one site to another. (See "Buffer.")

*Yard.* An open space unoccupied and unobstructed by any structure or portion of a structure from thirty (30) inches above the general ground level of the graded lot upward; provided that fences, walls, poles, posts and other customary yard accessories and furniture may be permitted in any yard, subject to the other requirements of this zoning ordinance. A yard may be: (1) the required yard—the minimum yard dimensions required by this zoning ordinance for a lot; or (2) the established yard—the yard established by the location of a principal building or structure on the lot. All references to yards in this zoning ordinance shall be deemed to be required yards, unless the language or context of the reference clearly indicates established yards are intended.

*Yard, front.* A yard extending between the side lot lines across the front of a lot. In the case of corner lots, all street frontages shall be considered as front yards. In the case of through lots, front yards shall be required on all street frontages. Where one of the required front yards is not in keeping with the prevailing yard patterns, the zoning administrator may designate the front and rear yards. See article 19.

*Yard, rear.* A yard extending between side lot lines across the rear of a lot. In the case of corner or through lots, there will be no rear yards, but only front and side yards, provided that in the case of through lots the zoning administrator may designate the front of the lot.

*Yard, side.* A yard extending from the rear of the required front yard to the front of the required rear yard.

## **ARTICLE 6. RESIDENTIAL DISTRICTS**

### **§ 6-1502. Development standards for single-family attached (townhouse) development.**

...

C. Special standards for R-TH-1 developments.

...

2. The development project shall be designed to promote harmonious relationships with surrounding properties through attention to the type, orientation and spacing/setback of buildings, preservation and maintenance of natural vegetation, location of recreational areas, open space, parking areas, grading, landscaping and screening/buffering.

...

...

(Ord. No. 95-O-216, 11-21-95; Ord. No. 96-O-072, 5-21-96; Ord. No. 98-O-055, 4-21-98; Ord. No. 05-O-015, 3-8-05)

### **§ 6-2201. Purpose and intent; application.**

A. Purpose. In conformance with state enabling legislation, the purposes of this section, among others, are as follows:

...

10. To provide multiple options for landowners in order to minimize impacts on environmental resources (sensitive lands such as wetlands and floodplains) and

disturbance of natural or cultural features (such as mature woodlands, hedgerows and tree lines, critical wildlife habitats, archeological sites, historic buildings and properties, and breastworks);

...

...

(Ord. No. 04-O-079, 5-18-04; Ord. No. 05-O-014, 3-8-05)

**§ 6-2205. Conservation land use and design standards.**

Designated conservation land in all cluster developments shall meet the following minimum standards:

...

B. *Design standards for conservation land.* The following design standards are required for all designated conservation land:

...

5. Where a cluster development adjoins public parkland, the designated conservation land shall be situated adjacent to the park to the maximum extent practicable. In cases where conservation land does not adjoin public parkland, a natural conservation buffer at least one hundred fifty (150) feet in width shall be provided within the cluster development along its common boundary with adjacent property. No new buildings or structures shall be constructed in the 150-foot buffer; nor shall any clearing of trees or understory growth be permitted unless approved by the planning director or designee as necessary for street or trail construction, active recreational facilities, public and private utilities subsurface septic disposal system, spray irrigation systems, or stormwater management facilities. Where the 150-foot buffer is unwooded or sparsely wooded, the planning director or designee may require that vegetative screening be planted or that the buffer be managed to encourage natural forest succession through "no-mow" practices and the periodic removal of invasive alien plant and tree species.

...

(Ord. No. 04-O-079, 5-18-04; Ord. No. 05-O-071, 6-21-05)

**§ 6-2206. - Residential design standards for cluster development.**

...

B. *Screening of residential development.* Views of residential lots from off-site streets and abutting properties shall be minimized by the use of changes in topography, berms, existing vegetation, or additional landscaping that meets or exceeds the landscaping requirements of the subdivision ordinance and the landscape ordinance, as determined by the planning director or designee.

...

E. *Street buffers.* Street buffers shall be required along all off-site existing and reserved arterial streets, as follows:

...

(4) If the street buffer is non-wooded, or lacks sufficient vegetative screening as determined by the director of planning or designee, the applicant shall install vegetation that is twice the required street frontage buffer in the landscape ordinance.

F. *Community entrance sign.* Notwithstanding anything to the contrary in section 14-700 of this Code, one (1) detached community entrance sign is permitted at each community entrance from an offsite public street, provided that each such sign meets the following criteria.

...

(6) Includes a landscaped area around the base of the sign at least twice the size of the sign area. Such landscaped area shall be a minimum of four (4) feet in width; protected from vehicular encroachment; and planted with a combination of low-growing shrubs and groundcovers (other than grass), including at least four (4) small shrubs as approved by the planning director or designee. The vegetation shall be designed and maintained to a maximum a height of four (4) feet above the grade.

...

(Ord. No. 04-O-079, 5-18-04)

**ARTICLE 7. BUSINESS DISTRICTS**

**§ 7-512. Development standards.**

...  
L. *Minimum open space.*

...  
3. A minimum twenty (20) percent tree canopy coverage shall be provided within the development. Street trees and landscaping planted within the right-of-way may be counted towards meeting the minimum canopy coverage requirement. Street trees may be placed in planters or metal grates located within the sidewalk. The development shall meet landscape requirements as outlined in section 19-600 of this ordinance. In lieu of buffer yards, buffer yard equivalency calculations may be approved by the director of development and permits, or designee. Required landscaping shall be shown on the master development plan.  
...

...  
(Ord. No. 07-O-168, 10-16-07; Ord. No. 09-O-051, 5-19-09; Ord. No. 10-O-127, 10-19-10)

**§ 7-601. Description.**

...  
C. *Special conditions pertaining to specific uses.* The following conditions shall apply to specific uses, as indicated in the "condition" column in the uses schedule:

...  
30. Netting shall be required for driving ranges along any property line, or portion thereof, which is located (1) less than one hundred fifty (150) yards to the rear or to either side of a tee area, or (2) less than three hundred (300) yards in front of a tee area. Where required hereunder, the netting shall be installed between the driving range and required landscape buffers. If no landscape buffer is required under article 19, the netting shall be installed no less than ten (10) feet from the property line at issue. Notwithstanding fence height restrictions in article 14, the netting shall not be less than thirty-five (35) feet in height. In issuing a conditional use permit for a driving range, the city council may vary the standards herein by stipulation. In any case, netting requirements may be waived by city council or where no conditional use permit is required, by the planning commission as a special exception, where it is determined that existing trees and shrubs border the driving range in such a manner as to provide neighboring properties with the same level of protection from golf balls as would netting.  
...

...  
(Ord. No. 94-O-180, 9-20-94; Ord. No. 95-O-196, 10-17-95; Ord. No. 96-O-108, 7-16-96; Ord. No. 96-O-139, 9-10-96; Ord. No. 97-O-027, 3-18-97; Ord. No. 99-O-022, 2-16-99; Ord. No. 99-O-057, 5-18-99; Ord. No. 99-O-105, 7-20-99; Ord. No. 00-O-094, 8-15-00; Ord. No. 01-O-004, 1-23-01; Ord. No. 01-O-032, 4-17-01; Ord. No. 03-O-029, 3-18-03; Ord. No. 03-O-084, 7-15-03; Ord. No. 03-O-094, 8-12-03; Ord. No. 04-O-030, 2-17-04; Ord. No. 04-O-124, 8-17-04; Ord. No. 05-O-014, 3-8-05; Ord. No. 05-O-075, 6-21-05; 05-O-147, 11-22-05; Ord. No. 06-O-053, 5-16-06; Ord. No. 07-O-077, 5-15-07; Ord. No. 07-O-168, 10-16-07; Ord. No. 09-O-005, 1-20-09; Ord. No. 12-O-014, 2-21-12; Ord. No. 14-O-089, 7-15-14; Ord. No. 15-O-134, 11-17-15)

**ARTICLE 8. INDUSTRIAL DISTRICTS**

**§ 8-601. Description.**

...  
C. *Special conditions pertaining to specific uses.* The following conditions shall apply to specific uses, as indicated in the "condition" column in the uses schedule:  
...

22. Netting shall be required for driving ranges along any property line, or portion thereof, which is located (1) less than one hundred fifty (150) yards to the rear or to either side of a tee area, or (2) less than three hundred (300) yards in front of a tee area. Where required hereunder, the netting shall be installed between the driving range and required landscape buffers. If no landscape buffer is required under article 19 of this ordinance, the netting shall be installed no less than ten (10) feet from the property line at issue. Notwithstanding fence height restrictions in article 14 of this ordinance, the netting shall not be less than thirty-five (35) feet in height. In issuing a conditional use permit for a driving range, the city council may vary the standards herein by stipulation. In any case, netting requirements may be waived by city council or where no conditional use permit is required, by the planning commission as a special exception, where it is determined that existing trees and shrubs border the driving range in such a manner as to provide neighboring properties with the same level of protection from golf balls as would netting.

...

(Ord. No. 95-O-135, 7-18-95; Ord. No. 96-O-139, 9-10-96; Ord. No. 97-O-027, 3-18-97; Ord. No. 97-O-096, 7-24-97; Ord. No. 99-O-057, 5-18-99; Ord. No. 99-O-142, 11-16-99; Ord. No. 01-O-032, 4-17-01; Ord. No. 01-O-043, 5-8-01; Ord. No. 01-O-053, 6-20-01; Ord. No. 03-O-029, 3-18-03; Ord. No. 03-O-084, 7-15-03; Ord. No. 03-O-094, 8-12-03; Ord. No. 04-O-030, 2-17-04; Ord. No. 04-O-124, 8-17-04; Ord. No. 05-O-075, 6-21-05; Ord. No. 05-O-147, 11-22-05; Ord. No. 06-O-053, 5-16-06; Ord. No. 07-O-077, 5-15-07; Ord. No. 09-O-005, 1-20-09; Ord. No. 09-O-125, 11-10-09; Ord. No. 10-O-114, 9-21-10; Ord. No. 12-O-014, 2-21-12; Ord. No. 12-O-098, 10-16-12; Ord. No. 15-O-134, 11-17-15)

## **ARTICLE 9. OFFICE, INSTITUTIONAL AND ASSEMBLY DISTRICTS**

### **§ 9-501. Description.**

C. Special conditions pertaining to specific uses. The following conditions shall apply to specific uses, as indicated in the "condition" column in the uses schedule:

...

22. Netting shall be required for driving ranges along any property line, or portion thereof, which is located (1) less than one hundred fifty (150) yards to the rear or to either side of a tee area, or (2) less than three hundred (300) yards in front of a tee area. Where required hereunder, the netting shall be installed between the driving range and required landscape buffers. If no landscape buffer is required under article 19 of this ordinance, the netting shall be installed no less than ten (10) feet from the property line at issue. Notwithstanding fence height restrictions in article 14 of this ordinance, the netting shall not be less than thirty-five (35) feet in height. In issuing a conditional use permit for a driving range, the city council may vary the standards herein by stipulation. In any case, netting requirements may be waived by city council or where no conditional use permit is required, by the planning commission as a special exception, where it is determined that existing trees and shrubs border the driving range in such a manner as to provide neighboring properties with the same level of protection from golf balls as would netting.

...

(Ord. No. 96-O-139, 9-10-96; Ord. No. 97-O-027, 3-18-97; Ord. No. 99-O-057, 5-18-99; Ord. No. 99-O-105, 7-20-99; Ord. No. 01-O-004, 1-23-01; Ord. No. 01-O-032, 4-17-01; Ord. No. 03-O-029, 3-18-03; Ord. No. 03-O-084, 7-15-03; Ord. No. 03-O-094, 8-12-03; Ord. No. 04-O-030, 2-17-04; Ord. No. 04-O-124, 8-17-04; Ord. No. 05-O-014, 3-8-05; Ord. No. 05-O-075, 6-21-05; Ord. No. 05-O-147, 11-22-05; Ord. No. 06-O-053, 5-16-06; Ord. No. 07-O-077, 5-15-07; Ord. No. 09-O-005, 1-20-09; Ord. No. 12-O-014, 2-21-12; Ord. No. 15-O-134, 11-17-15)

## **ARTICLE 10. CONSERVATION AND AGRICULTURAL DISTRICTS**

### **§ 10-601. Description.**

...

C. Special conditions pertaining to specific uses. In the table below, the numbers shown in the column entitled "condition" shall have the following meaning:

...

24. All operations shall be in accordance with the Virginia Seed Tree Law (Code of Virginia, 1950 as amended, title 10.1, chapter 11, article 12, sections 10.1-1181.1 through 10.1-1181.7) and the section 404 of the Federal Clean Water Act, section 323.4.

...

27. Netting shall be required for driving ranges along any property line, or portion thereof, which is located (1) less than one hundred fifty (150) yards to the rear or to either side of a tee area, or (2) less than three hundred (300) yards in front of a tee area. Where required hereunder, the netting shall be installed between the driving range and required landscape buffers. If no landscape buffer is required under article 19 of this ordinance, the netting shall be installed no less than ten (10) feet from the property line at issue. Notwithstanding fence height restrictions in article 14 of this ordinance, the netting shall not be less than thirty-five (35) feet in height. In issuing a conditional use permit for a driving range, the city council may vary the standards herein by stipulation. In any case, netting requirements may be waived by city council or where no conditional use permit is required, by the planning commission as a special exception, where it is determined that existing trees and shrubs border the driving range in such a manner as to provide neighboring properties with the same level of protection from golf balls as would netting.

...

(Ord. No. 94-O-180, 9-20-94; Ord. No. 96-O-139, 9-10-96; Ord. No. 97-O-027, 3-18-97; Ord. No. 97-O-133, 10-21-97; Ord. No. 99-O-142, 11-16-99; Ord. No. 01-O-032, 4-17-01; Ord. No. 03-O-029, 3-18-03; Ord. No. 04-O-079, 5-18-04; Ord. No. 04-O-124, 8-17-04; Ord. No. 05-O-014, 3-8-05; Ord. No. 05-O-075, 6-21-05; Ord. No. 05-O-147, 11-22-05; Ord. No. 09-O-005, 1-20-09; Ord. No. 15-O-134, 11-17-15)

## **ARTICLE 11. PLANNED UNIT DEVELOPMENT DISTRICTS**

### **§ 11-100. Intent.**

Within all zoning districts, except C-1 and C-2, it is intended to permit, on application and approval of detailed site, use, building, and development plans, the establishment of new planned unit development (PUD) districts for specialized purposes where tracts are in a suitable location, area and character for the uses and structures proposed to be planned and developed in a unified manner. Suitability of such tracts for the plans and development proposed for the PUD district shall be determined primarily by reference to the existing and prospective character of surrounding development and the city's comprehensive plan. Within PUD districts, regulations adapted to such unified planning and development are intended to accomplish the purposes of zoning and other applicable regulations to the same degree as in districts in which regulations are intended to control development on a lot-by-lot rather than unified basis. PUD's are further intended to promote the economical and efficient use of land, an improved level of amenities, appropriate and harmonious variety in physical development, creative design, and a better environment. PUD districts include planned unit residential development, (PUD-R), planned unit commercial development (PUD-C), planned unit industrial park (PUD-IP), and urban planned unit development (PUD-U).

PUD's shall be designed to ensure that the following standards will be met:

...

2. The development will efficiently utilize that available land, and will protect and preserve to the extent possible natural features of the land such as trees, streams and topographic features.

...



(Ord. No. 02-O-115, 9-17-02; Ord. No. 06-O-051, 5-16-06)

**§ 11-601. Applications and materials to be submitted.**

Applications for a PUD amendment shall be submitted as required for other zoning amendments. Materials submitted with the application or on subsequent request by the planning commission shall include all plans; maps, studies, and reports which may reasonably be required to make the determinations called for in the particular case, with sufficient copies for necessary referrals and records. All maps taken together with all reports and other written statements shall be considered the master development plan. The following shall be submitted for a PUD amendment:

...

6. A community impact statement which describes the probable effect of the proposed development upon the community. At a minimum, it shall address the following:

...

e. Impact of construction and permanent changes in land use upon surrounding property, such as aesthetics, vegetation, stormwater management, noise, air, and water pollution.

...

...

(Ord. No. 02-O-115, 9-17-02; Ord. No. 06-O-051, 5-16-06)

**§ 11-805. Existing natural and historic features.**

Existing natural conditions and historic sites/structures shall be identified and considered during the master plan development process. Natural features include a significant stand of trees, outstanding trees, trees greater than 18 inches in diameter, watercourses, natural drainage patterns, and rare or endangered plant material. Historic sites and structures include all properties and structures identified in the Reconnaissance and Intensive Survey of Architectural Resources in the City of Chesapeake (1999, as amended).

(Ord. No. 02-O-115, 9-17-02)

**§ 11-1107. Landscaping.**

A. Street trees spaced twenty-five (25) feet on center shall be planted along all public and private streets to create a continuous public edge. Street trees should be planted outside the right-of-way unless the street section has been widened to accommodate the trees, as determined by the department of public works.

B. Median trees shall be planted thirty (30) feet on center in all medians within public and private streets. Safe lines of sight for motorists should always be considered when selecting the type, size and location of trees within the median.

C. Except for entrances, driveways and utility lines to the site, existing trees located between the street and established front yard (building line) should be protected and preserved to the greatest extent possible.

D. At a minimum, all developments should meet the city's landscape ordinance (article 19 of this ordinance).

E. Property lines that abut sensitive areas such as park land, open space and residential uses may require additional landscaping and screening structures, such as walls and berms, to provide a continuous and effective buffer between such uses. Such enhanced buffering shall be specified in the master development plan.

(Ord. No. 02-O-115, 9-17-02)

**§ 11-1306. Tree canopy and open space requirements.**

A. At least ten (10) percent of the developable area of the site shall be designated as open space. Non-developable areas include wetlands, as defined in the Code of Virginia, 1950, as amended; properties submerged under nontidal waters, up to the normal watermark; and properties subject to easements for the construction of open ditches and aboveground facilities. Such open space may include green areas, parks, landscaped areas open to the sky, lakes, roof gardens, walkways, trails, outdoor gardens, plazas, playground and recreational facilities, sports facilities, surface easements for drainage and other utilities over areas not

within the lines of a parcel intended for development, and properties which are designated by a developer as buffer areas for purposes of protecting wetlands and other environmentally sensitive areas and which otherwise would be suitable under this zoning ordinance for development.

B. Fifty (50) percent of the required open space must be configured for usable recreation. Usable recreation shall include parks, plazas, landscaped areas open to the sky, playgrounds, roof top gardens, and pedestrian ways other than street sidewalks. Town squares and plazas that provide open areas where people can gather in a large group should be centrally located with dwelling units and businesses facing the open spaces. Smaller open spaces, such as pocket parks should be located throughout the development.

C. A minimum of twenty (20) percent tree canopy coverage shall be provided for PUD-U development. Street trees and landscaping planted within the right-of-way may be counted towards meeting the minimum canopy coverage requirement. Street trees may be placed in planters or metal grates located within the sidewalk.

D. Landscaping should be provided in spaces between buildings or on undeveloped parcels. (Ord. No. 06-O-051, 5-16-06)

### **§ 11-1307. Design guidelines.**

An application for an urban planned unit development shall contain comprehensive design guidelines which address, at a minimum, the following:

- ...
4. *Streetscapes.* Streets are public places and as such include the elements of street trees, street furniture, street graphics, fountains, decorative street lighting and other gathering places. Trees and planters are placed on a regular basis along the edge of the street. Both the buildings and the street create the public space.

...  
(Ord. No. 06-O-051, 5-16-06)

## **ARTICLE 12. SPECIAL OVERLAY DISTRICTS**

### **§ 12-405. Permitted and conditional uses for properties located within the Fentress Airfield overlay district.**

...

C. In determining whether to grant a conditional use permit application, city council shall consider the compatibility tables (Tables 1 and 2) set out in section 12-406 below. No conditional use permit application shall be granted unless, and in addition to meeting the criteria for granting conditional use permits set out in article 17 of this zoning ordinance, the property and proposed buildings and structures meet the following minimum standards (the Chesapeake Health Department may require larger lots, widths and setbacks necessary for adequate sewage disposal):

- ...
5. A four-foot high landscaped berm with a 3:1 slope and a two-foot wide top shall be installed between any proposed use and any existing residential unit located within five hundred (500) feet of any building on the lot on which the use is located. Such berm at a minimum shall be equal in length to the side of the building facing the residential unit. This berm requirement may be waived if existing or proposed trees or other vegetation are determined to provide comparable screening.

...

(Ord. No. 98-O-158, 10-20-98; Ord. No. 05-O-147, 11-22-05; Ord. No. 05-O-149, 11-22-05; Ord. No. TA-Z-07-10, 8-21-07; Ord. No. 13-O-031, 3-19-13)  
Editor's note— Ord. No. 05-O-149, adopted November 22, 2005, redesignated the former § 12-406 as subsections 12-405 C.—H.

## **ARTICLE 14. ACCESSORY USES AND STRUCTURES**

### **§ 14-200. Fences, walls and hedges.**

A. *Definition.* As used in the following sections, fences and walls shall be deemed to be physical or visual barriers enclosing or separating properties or portions of the same property. Any such barrier which is made up solely of shrubbery or similar vegetation shall be deemed to be a hedge. Unless the context clearly indicates otherwise, use of the term "fence" in this ordinance shall be deemed to include walls and hedges.

B. Exclusions.

1. Grass, weeds and other similar vegetation shall not be deemed to constitute a hedge and shall be subject to the requirements of chapter 62 of the city Code, entitled "Solid Waste."
2. The grouping of living trees on a property, even when done for the purpose of creating a physical or visual barrier within or between properties, shall not be deemed a fence and therefore shall not be subject to the requirements of the sections governing fences, walls and hedges. However, the location of such trees shall be subject to the requirements for visibility at intersections and entrances to streets set out in section 19-204 of this ordinance.

**§ 14-302. Level II home occupations.**

...  
C. Small contracting businesses. The city council may authorize, by conditional use permit, small contracting businesses operated as home occupations in the A-1 agricultural and RE-1 residential estate districts only, in accordance with the following standards:

- ...
2. No conditional use permit application shall be granted unless, in addition to meeting the criteria for granting conditional use permits set out in article 17 of this zoning ordinance, the property meets the following minimum standards (the Chesapeake Health Department may require larger lots, widths, and setbacks necessary for adequate sewage disposal):

...

- d. A four (4) foot high landscaped berm with a 3:1 slope and a two (2) foot wide top area shall be installed between the small contracting business and any existing dwelling unit located within five hundred (500) feet of any building on the lot on which the home occupation is conducted. Such berm at a minimum shall be equal in length to the side of any building used in the home occupation that faces the existing dwelling unit. This berm requirement may be waived by city council if existing or proposed trees or other vegetation are determined to provide comparable screening.

- e. Any approved parking, loading or outside storage area located between any building used in the home occupation and any public street bordering the property shall be effectively screened from view from all public streets by a vegetated landscaped buffer approved by the city council.

...  
(Ord. No. 02-O-006, 1-15-02; Ord. No. 04-O-030, 2-17-04)

Editor's note— Ord. No. 02-O-006, adopted January 15, 2002, repealed and reenacted § 14-302 to read as herein set out. Formerly, § 14-302 pertained to limitations on uses permitted as home occupations and derived from Ord. No. 94-O-257, adopted December 20, 1994, and Ord. No. 01-O-053, adopted June 20, 2001.

**ARTICLE 19. DESIGN, DEVELOPMENT AND PERFORMANCE STANDARDS**

**§ 19-416. Reduction in number of parking spaces and parking setbacks in exchange for tree preservation.**

A. The planning director may approve preliminary site plans, which provide for the preservation of mature trees existing on the site in exchange for a reduction in the number of parking spaces required under this ordinance or a reduction in required parking area setbacks. The reduction in the number of parking spaces shall not exceed twenty-five (25) percent of

the overall number required. The reduction in parking area setbacks shall not exceed fifty (50) percent of the required setback.

B. No preliminary site plan shall be approved under this subsection unless or until the reduction in parking spaces or parking area setback is approved by a landscape review committee comprised of the planning director or designee, the director of development and permits, or designee, and two members of the planning commission appointed by the chairman for this purpose. All preliminary site plans showing a reduction in parking spaces or parking area setback in exchange for the preservation of trees shall be evaluated by the landscape review committee using the following criteria:

1. The location, number, and density of the trees to be preserved;
2. The species of the trees to be preserved, along with any unique or special value assigned to such species by the director of development and permits, or designee;
3. The age, health and expected life span of the trees to be preserved;
4. The historical significance, if any of the trees to be preserved;
5. The types of measures to be taken to ensure the preservation and maintenance of the trees to be preserved;
6. The overall benefit of the preservation of the trees as weighed against any adverse impact that may result from a reduction in parking area setbacks or parking spaces;
7. The number of parking spaces to be provided will be adequate to serve the proposed use; and
8. Sufficient area is shown on the site plan as reserved for additional parking in the event the number of spaces provided proves inadequate, in which case the planning director may require the property owner to install additional spaces to accommodate the use of the site.

In granting approval of a reduction of parking spaces under this subsection, the landscape review committee may impose stipulations designed to ensure that the trees are properly preserved and maintained and that parking areas are reserved. Any applicant aggrieved by the decision of the landscape review committee may file a written appeal to the planning commission within ten (10) days of the decision appealed from.

C. Any property owner or developer who receives a reduction in the number of parking spaces or a reduction in parking area setbacks required in exchange for the preservation of mature trees shall:

- (1) Take all action deemed necessary by the planning director and/or landscape review committee to protect the trees from damage or destruction during clearing and construction activities;
- (2) Refrain from depositing fill material within the drip line of any tree to be preserved, and
- (3) Take such action as is necessary to ensure that the trees will not be removed in the future without the consent of the director of development and permits, or designee.

D. In the event any tree or tree area to be preserved under this section is destroyed or, in the opinion of the director of development and permits, or designee, significantly damaged during clearing or construction activities, or is willfully destroyed, injured or removed in the future, the person responsible for such destruction, injury or removal shall replace such tree or group of trees by planting and preserving one (1) large tree of two (2) inch caliper and one (1) small tree six (6) to eight (8) feet in height within every 300 square feet of area in which the damaged or destroyed tree or group of trees stood.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 98-O-042, 3-17-98; Ord. No. 03-O-029, 3-18-03; Ord. No. 09-O-051, 5-19-09; Ord. No. 10-O-127, 10-19-10)

Editor's note— Ord. No. 03-O-029, adopted March 18, 2003, changed the title of § 19-416 from "reduction in number of parking spaces in exchange for tree preservation" to "reduction in number of parking spaces and parking setbacks in exchange for tree preservation." The historical notation has been preserved for reference purposes.

### **§ 19-600. Landscaping and buffering.**

A. In General. This section of the zoning ordinance of the city of Chesapeake shall be known and may be cited and referred to as the Chesapeake Landscape Ordinance. The Chesapeake

Landscape Specifications Manual, including definitions, is hereby incorporated into and made a part of this ordinance.

B. *Intent.* The intent of this ordinance is to provide minimum standards for the preservation, protection and enhancement of the ecologic and aesthetic environments of the City of Chesapeake. The urban forest which includes all landscaped areas within the city, serves to prevent soil erosion; reduce the hazards of flooding; absorb carbon dioxide and supply oxygen; reduce the effects of noise, glare, dust, and other objectionable activities generated by some land uses; provide shade and reduce adverse effects of winds; safeguard and enhance property values; buffer and screen adjacent properties; and promote the pleasant appearance and character of neighborhoods.

(Ord. No. 97-O-141, 11-18-97)

**§ 19-601. All sites.**

A. *Landscaping plan requirements.*

1. A preliminary landscaping plan, showing the location and dimensions of green space, buffer yards, and existing and known proposed public and private easements, shall be required as part of any preliminary site plan for all multifamily and nonresidential developments and for all residential major subdivisions where rear or secondary front yards abut an existing or proposed right-of-way 80 feet or more in width.

2. A final landscaping plan, prepared by a landscape designer, shall be submitted in the following circumstances: (1) as part of the final site plan for any multifamily or nonresidential development; (2) as part of the building permit application for any single-family or duplex residential construction on a lot, and (3) as part of any final subdivision plan for a residential major subdivision where rear or secondary front yards abut an existing or proposed right-of-way 80 feet or more in width.

3. Such landscaping plans shall contain the landscaping and/or plant replacement specifications required under this ordinance, including the Chesapeake Landscape Specifications Manual, which is hereby incorporated into and made a part of this ordinance by reference.

B. *Site analysis.* A site analysis, including all tree preservation areas, is required as part of the submittal of each preliminary and final subdivision plat, site plan, or erosion and sediment control plan submitted to the city. Such site analysis shall, by plan and narrative, include all those elements required by the Chesapeake Landscape Specifications Manual. The site analysis may, upon approval of the director of development and permits, or designee, based on-site conditions, be presented in a narrative format only.

C. *Townhouse communities.* In townhome communities where adequate space does not exist for the placement of trees otherwise required under this ordinance, the city may approve the placement of trees in open spaces, common areas or end lots where adequate and appropriate space for mature growth exist. If such a plan is approved, it shall be the developer's responsibility to set forth a schedule for the installation of these plantings that meets the approval of the city. Further, the developer shall be responsible to call for city inspection and approval of said landscaping upon completion.

D. *Parking areas.*

1. Green space meeting the definition contained in the Chesapeake Landscape Specifications Manual shall be provided within the interior of parking areas at a ratio of 30 square feet of greenspace per each off-parking space provided; off-street parking space as defined in section 19-408 of this ordinance. Only those areas directly adjacent to and directly associated with the rows of parking will count towards required green space.

2. The equivalent of 400 square feet of large tree canopy coverage (appendix B of the Chesapeake Landscape Specifications Manual) shall be planted for each 150 square feet of interior green space provided.

3. Where feasible, as determined by the director of development and permits, or designee, utilities shall be located outside of required green space.

4. Green space containing less than 150 square feet in contiguous area will not count toward interior green space required for parking. Individual green areas 150 square

feet or more in contiguous area shall not substitute for more than 1,000 square feet of interior green space required for parking.

5. A maximum of 30% of the required interior green space may be combined with required buffer yards when natural vegetation is being retained in any such buffer yard. This combination of required areas shall only be permitted in the vicinity of, and in conjunction with, tree preservation, as approved by the director of development and permits, or designee. When tree preservation is approved, up to 1,500 square feet of contiguous interior green space may count toward interior green space requirements.

6. Green space no smaller than 9 x 18 feet in size, and containing at least one large tree, shall be required at both ends of each row of parking spaces containing 7 or more spaces. All parking lot trees shall be large trees, as listed in the Chesapeake Landscape Specifications Manual, unless otherwise approved by the director of development and permits, or designee, due to extenuating circumstances.

E. *Buffer yard requirements.*

1. Where the zoning classification for a site to be developed under this section is more intense than the classification of a property bordering such site, the landscaping plan for the more intensely zoned site shall include provisions for a buffer yard and/or structure required along the length of the property line that separates the site from the property having a less intense zoning classification, as provided for in section 19-610 below.

2. A vegetated buffer as described in and required by section 19-610 shall be installed on those sites bordering public or private streets, including alleys, service drives and rights-of-way, unless waived or modified by the director of development and permits, or designee, pursuant to section 19-606 of this ordinance. All required landscaping shall be set back from the street and ingress/egress points an adequate distance to provide clear visibility, in accordance with section 19-204 of this ordinance. Tree locations and spacing may be adjusted to provide reasonable visibility of signage and to ensure safe ingress/egress.

3. Street frontage hedges shall be restricted to a mature height of 4 feet except where they are required to screen service entrances and outside storage areas, where they shall be maintained at a height of 6 feet.

4. A minimum of 7 feet width, or 50 % of the required width, whichever is greater, of any required buffer yard must be located outside of all public or private easements. Where feasible, required trees must be located outside of all public easements or private utility easements. The director of development and permits, or designee, shall determine on a case-by-case basis whether the location of trees outside of a particular utility easement is feasible, giving due consideration to such factors as topography, size of the lot and site design. No trees shall be planted in an easement where prohibited by the deed or agreement by which the easement was created. Required shrubs may be planted within a utility easement, provided that shrubs are not prohibited by the deed or agreement which created the easement. If no deed or agreement exists, no plant materials shall be placed in the easement area without the express permission of all persons having rights or interest in the easement.

5. Buffers required adjacent to public or private rights-of-way with an existing or proposed width of 80 feet or more are to be provided by the landowner or developer and depicted on the final subdivision plat recorded in the clerk's office of the circuit court of the City of Chesapeake. The plat shall contain a note stating that no structure shall be located in the buffer and that all plant materials therein are to be maintained by the owner of the property.

6. Screening for communication towers shall be in conformance with section 13-606 of this ordinance.

7. A buffer yard D as described in Section 19-610 of this ordinance, with a three-foot berm, shall be required where the rear of any commercial or industrial building faces a public or private right-of-way having an existing or proposed width of 80 feet or more.

8. For additional buffer yard and screening requirements, see Section 14-200, Fences, walls and hedges; Section 14-500, Trash receptacles; and Section 14-700, Signs.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 08-O-121, 9-16-08; Ord. No. 10-O-127, 10-19-10)

**Sec. 19-602. The preservation and canopy requirements.**

The landscape plan for every site shall contain the tree preservation and canopy requirements set out below.

A. *Tree preservation areas.* Tree preservation areas which are marked on the plan shall be clearly delineated on the site. These areas are to be protected from traffic, equipment, excavation, stockpiles and staged materials. Areas set forth as tree preservation areas must remain marked and protected during construction in order to be included in the calculation of the required canopy.

B. *Tree canopy requirement—Nonresidential development.* Each plan for nonresidential development shall provide a landscaping plan that, at tree maturity, provides a minimum canopy of ten percent (10%) of the calculation area.

C. *Tree canopy requirement—Residential development.* Each residential plan shall provide a landscaping plan that, at tree maturity, provides minimum tree canopy as set out below.

1. Tree canopy totaling fifteen percent (15%) of the calculation area for a residential site zoned for multifamily or townhouse use.

2. The following tree canopy requirements apply to lots zoned single-family residential and lots zoned agricultural lawfully used for residential purposes:

a. For lots smaller than one-half acre in size, twenty (20) percent of the calculation area as approved by the director of development and permits, or designee.

b. For lots one-half (1/2) acre and larger, twenty (20) percent of the calculation area with a maximum requirement of eighteen (18) large trees or thirty-six (36) small trees or a combination as approved by the director of development and permits, or designee. Required trees shall be six (6) to eight (8) feet in height at the time of planting.

D. *Requirements for preservation and replacement.* The canopy requirements set out above shall be met by preservation or replacement methods as indicated in the Chesapeake Landscape Specification Manual. Where final site conditions will make the successful preservation of existing plants unlikely, the City of Chesapeake may direct the owner or developer to provide new, appropriate species and locations to ensure canopy coverage as set forth by the ordinance.

E. *Incentives for preservation of trees.* A credit toward canopy requirements will be given for the preservation of an outstanding tree, as defined in the Chesapeake Landscape Specifications Manual, or for the preservation of a cluster of trees, approved by the director of development and permits, or designee, pursuant to the following:

1. The credit provided per outstanding tree will be 2.0 multiplied by the area defined by the boundaries of the existing drip line of the tree.

2. The credit provided for a cluster of trees will be 1.25 multiplied by the area defined by the boundaries of the existing drip line of the cluster.

3. Credit shall only be given under this subsection if the entire area under the drip line of the outstanding tree or cluster of trees is preserved in a manner satisfactory to the director.

4. In the event one or more trees to be preserved under this subsection is destroyed or, in the opinion of the director, is significantly damaged during clearing or construction activities, or is willfully destroyed, injured or removed, the person responsible for such destruction, injury or removal shall replace such trees by planting or preserving one (1) large tree of four (4) inch caliper and one (1) small tree six (6) to eight (8) feet in height within every 300 square feet of area in which the damaged or destroyed tree or trees stood.

F. Placement of newly provided landscaping for certain residential districts. A minimum of one large or two small trees, as specified in the Chesapeake Landscape Specifications Manual, shall be planted in the front yard of each residential lot for residential districts allowing ten or fewer dwelling units per acre.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 98-O-042, 3-17-98; Ord. No. 98-O-156, 10-20-98; Ord. No. 08-O-121, 9-16-08; Ord. No. 10-O-127, 10-19-10)

**§ 19-604. Final inspection and approval.**

A. *Approval required for permanent certification of occupancy; temporary certificates.* Prior to issuance of a permanent certificate of occupancy, the required landscaping shall be in place, and damaged or dead plants shall be pruned, removed or replaced as required by the director of development and permits, or designee, to ensure compliance with this ordinance. In the event that one of the following circumstances exists, a temporary certificate of occupancy, of an appropriate duration, may be issued. When such temporary certificate of occupancy is desired, the owner, developer, or builder shall submit in writing the circumstances justifying the request and the specific requested duration of the temporary certificate of occupancy.

1. Planting season does not permit immediate installation.
2. Weather conditions prohibit installation.
3. Specified plant material is not available.
4. Site conditions beyond the control of the owner, builder, or developer do not permit immediate installation.

B. *Reinspection and approval.* When the required landscaping is complete, the owner, builder or developer shall call for a reinspection. After approval by the city of Chesapeake, the permanent certificate of occupancy will be issued, provided there are no other impediments.

C. *Bond requirement.* The city may require that a bond or other security acceptable to the city be provided as a condition of development in order to ensure the timely completion of the landscape plan. No bond shall be required for single-family residential developments other than detached condominium units.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 10-O-127, 10-19-10)

**§ 19-605. Maintenance.**

Retained and newly provided landscaping shall be maintained in healthy condition. Damaged or dead plants shall be pruned, removed or replaced as required by the director of development and permits, or designee, to ensure compliance with this ordinance. Plant material lost due to work within utility easements shall be replaced and/or relocated as directed by the City of Chesapeake at the property owner's expense.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 10-O-127, 10-19-10)

**§ 19-606. Waivers and modifications.**

A. *Approval of waivers or modifications.* Planting, preservation, buffer yard and green space requirements may be waived or modified by the joint approval of the city arborist and the planning director, or designee, under one or more of the following circumstances:

1. The particular characteristics of the site, such as its size, configuration, topography or subsurface conditions, are such that strict application of the requirements of this ordinance would result in unreasonable hardship to the developer.
2. Existing conditions on the site or neighboring sites are such that the buffering and canopy coverage intended by this ordinance are substantially provided without imposing such requirements.
3. Existing conditions on neighboring sites are such that compliance with the requirements of this ordinance would not produce the effect intended by the ordinance.

B. *Appeal of decisions to the planning commission.* Decisions made by the director of development and permits, or designee, may be appealed to the planning commission and placed on the next available agenda for a final decision.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 10-O-127, 10-19-10)

**§ 19-607. Additions or modifications to existing development.**

Additions or modifications to existing development shall be landscaped according to this ordinance. Landscaping requirements shall be confined to the area of new development. Decisions regarding the extent of new landscaping or preservation required will be made by the city of Chesapeake in accordance with this standard and may be appealed to the planning commission for a final decision.

**§ 19-608. Conditional use permits.**



A. *Additional landscaping requirements.* In addition to the landscaping requirements otherwise applicable to a use for which a conditional use permit is required, city council may impose further landscaping requirements as a condition of granting of any such use permit, in order to ensure the compatibility of the site with surrounding properties.

B. *Buffer yard requirements.* Unless otherwise specified by city council, the buffer yard requirements for a use requiring a conditional use permit shall be based upon the zoning classification in which such use is a permitted use under this ordinance. When such use is not a permitted use in any zoning classification under this ordinance, the buffer yard requirements shall be based upon the most intensive zoning classification in which such use is a conditional use.

**§ 19-609. Violations.**

Any violation of the terms of this section shall be a violation of the zoning ordinance and shall be subject to the penalties established for violations of the zoning ordinance. Enforcement action may be brought by the zoning administrator or by the city of Chesapeake.

**§ 19-610. Tables and buffer yard standards.**

The tables entitled "Buffer Yard Standards" and "Table of Required Buffer Yards" are hereby made a part of this ordinance and shall be used to determine the nature and type of each buffer yard that is required for a site that is subject to this ordinance.

**§ 19-610. Buffer yard standards.**

Buffer Yard	Width	Structure Required	Plants Required per 100 Linear Feet of Buffer Yard**
A	10'		25 shrubs 18–24" height
B	10'		3 large trees, 10 shrubs 18–24" height
C	10'	*6' stockade fence, or wall or 2' berm 10' off property line	3 large trees, 20 shrubs 18–24" height
		* 6' stockade fence, or wall 5' off property line	3 large trees, 20shrubs 18–24" height (with fence or wall)
		No fence or wall	3 large trees, 30 shrubs 18–24"height, maintained at 6' height (without fence or wall)
D	15'	* 6' stockade fence or wall, 10' off property line, or 3'berm	3 large trees, 25 shrubs 18–24" height***
		*6 stockade fence or, wall 7' off property line	3 large trees, 25shrubs 18–24" height
		No fence, wall or berm	3 large trees, 2 small trees, 25 shrubs18–24" height
E	20'	* 6' stockade fence, wall or 3' berm adjacent to the more intensely zoned property 20' off property line	3 large trees, 2 small trees, 25 shrubs 18–24" height
F, Street frontage buffer	10'		3 large trees, 25 shrubs18–24" height

\* A standard opening shall be provided on each lot.

\*\* Two small trees can be substituted for one required large tree. The terms "large tree," "small tree," and "shrubs" as used herein shall be assigned the meaning given in the Chesapeake Landscape Specifications Manual.

\*\*\* 17 shrubs 30" in height may be used in lieu of 25 shrubs 18–24" in height.

**§ 19-610. Table of required buffer yards.**

Zoning Classification of Developing Property	Rear or Secondary Front Yards Bordering Right-of-Way 80' or Wider	Street or Rights-of-way	Loading Storage & Service Areas	C-1, C-2	Two-family Single-Family Residence	R-TH-1, R-MF-1 R-MF-2	O I AC	B-1	B-2	M-1
Two-Family and Single-Family Residential	C									
R-TH-1	C		A		*C					
R-MF-1, R-MF-2	C	F	A	E	C					
O&I AC		F	A	E	D	C				
B-1		F	A	E	D	C	B			
B-2 C-2		F F	A	E	D D	D	B			
M-1		F	A	E	E	E	C	B	B	
M-2, M-3		F	A	E	E	E	C	B	B	

\* Rear or side yard buffer required when bordering rights-of-way to be provided by the developer.

(Ord. No. 97-O-141, 11-18-97; Ord. No. 08-O-121, 9-16-08)

**§ 19-706. Dedication, preservation and maintenance.**

...

D. The subdivider or developer shall ensure that the land dedicated as open space or recreational area meets all development criteria for the zoning district in which the property is located. The subdivider or developer shall improve such land with drainage, utilities (including payment of pro rata), access, curb and gutter and other public improvements applicable to subdivisions and developments under chapter 70 of the subdivision ordinance and article 18 of this ordinance. All bonding provisions in chapters 66 and 70 of the City Code shall apply to open space dedications. Notwithstanding anything to the contrary in this ordinance, landscaping shall consist of twenty percent (20%) tree canopy coverage, calculated in accordance with section 19-600. The type and location of the large canopy trees shall be shown on a landscape plan approved by the director of development and permits, or designee. The twenty percent (20%) canopy coverage may be accomplished by preservation or new plantings, however, the director may in any case require trees along the perimeter of the open space and shall further require that all dead and dying trees be removed before the land is dedicated as open space.

(Ord. No. 02-O-122, 10-15-02; Ord. No. 09-O-051, 5-19-09; Ord. No. 10-O-127, 10-19-10)

Editor's note— Ord. No. 02-O-122, adopted October 15, 2002, amended § 19-706 in its entirety to read as herein set out. Formerly, § 19-706 pertained to preservation and maintenance and derived from original codification.



**LANDSCAPE  
SPECIFICATIONS MANUAL**

**A Guide for Implementing the Chesapeake Landscape Ordinance**

**Effective January 1, 1998**  
(With amendments through October 20, 1998)

# CHESAPEAKE LANDSCAPE SPECIFICATIONS MANUAL

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# CHESAPEAKE LANDSCAPE SPECIFICATIONS MANUAL

## I. DEFINITIONS

**Buffer Yard** - An area designated on a site plan or landscape plan for the purpose of creating a physical and visual buffer as specified in Section 19-610 of the Chesapeake Zoning Ordinance. Buffer yards shall be required depending upon the zoning classification of the site to be developed and the classification of the property adjacent to the site. The different buffer yard arrangements are expressed through the chart set out in Section 19-610. The buffer yard requirements are expressed in that subsection in terms of the width of the buffer yard and the number of plant units required per one hundred (100) linear feet of buffer yard. When structures are required, all shrubs shall be located on the side of the structure facing the less intensively zoned property. Trees, since they provide upper canopy, may be placed on either side of the structure but within the confines of the buffer yard. Buffer yards are required along the entire frontage of the property which is being developed.

A buffer yard may be used for passive recreation with the approval of the City Arborist, provided that no required plant material is deleted. Utility easements shall not be included within buffer yards unless the City Arborist determines that it is not feasible to locate the required plant materials outside of the easement. Buffer yards may be waived or modified by the City Arborist where a site has been specifically designed to minimize the impact through a combination of architectural and landscape techniques.

As set out in Section 19-610, landscape buffering between single family residential properties and streets and similar right-of-way shall be required only when the rear or secondary front yards of such property border such streets or right-of-way. The buffer yard shall be applicable only when such street or right-of-way has an existing or proposed width of at least eighty (80) feet, as determined by the Department of Public Works.

**Calculation Area** - For the purposes of determining the number of trees to be retained or planted on a site to meet the tree canopy coverage requirement, the area of the site shall not include the area encompassed by the building footprint, including patios, decks, sidewalks and driveways, on single-family and duplex lots; those areas within the site which constitute tidal or non-tidal wetlands; environmentally sensitive areas; areas which are designated as buffer areas on which no development is permitted; properties submerged under water; properties subject to easements unrelated to the development of the site; properties reserved or dedicated for future street construction or other public facilities; or similar uses. The developer, at its option, may include, as being part of the area of the site for purposes of determining tree canopy coverage, that area designated as open space under Sections 19-700 et seq. of the Zoning Ordinance.

In the case of subdivisions, each individual residential lot shall be considered a separate site under the landscape ordinance and this manual.

**Canopy Requirement for All Sites -**

1. Non-residential - Ten percent (10%) of the calculation area.
2. Residential zoning for multi-family (R-MF-1, R-MF-2) or townhouse (R-TH-1) use - fifteen percent (15%) of the calculation area.
3. Residential zoning other than for multifamily or townhouse use - twenty percent (20%) of the calculation area; provided that for lots one-half acre in size or larger, no more than eleven (11) large trees or twenty-one (21) small trees, or combination thereof approved by the City Arborist as being consistent with the canopy coverage calculations, shall be required per lot. Such trees shall be 6 - 8 feet in height at the time of planting.

**Final Landscaping Plan** - A plan, drawn to scale by a landscape designer, which delineates all existing and proposed parking spaces, access aisles, driveways, other vehicle areas, all existing and proposed easements (including, but not limited to, utility easements, drainage easements, access easements, telephone easements, cable easements, and Virginia Power easements), right-of-way dedications and reservations, and all existing and proposed utilities. Such final landscaping plan shall show all tree preservation areas with method of preservation; green spaces and buffer yards; specific location, numbers, and types of all plant materials to be planted; and all vegetation and supporting structures for the buffering to be provided; and where applicable, the landscaping for parking areas.

An approved landscape plan can be amended only with approval of the City Arborist.

**Green Space** - An unpaved area used exclusively for soil and plant materials. Green space areas shall be a minimum of 150 square feet and a maximum 1000 square feet and shall contain uncompacted native soil, deemed suitable by the City Arborist, to a minimum depth of three (3) feet. Compacted or clay soils shall be removed to a minimum depth of three (3) feet from the top of the finished grade and be replaced with rich loam soil or uncompacted native soil.

**Landscape Designer** - A certified landscape architect, a landscape architect, an individual with a two (2) or four (4) year degree in ornamental horticulture, a member of the Virginia Society of Landscape Designers, an arborist certified by the International Society of Arboriculture, or a certified Virginia Nurseryman. A final landscaping plan submitted as part of the building permit application for single family

or duplex residential construction may be prepared by a licensed surveyor or engineer. The name and signature of the person responsible for the landscape design must be shown on the plan.

**Outstanding Trees** - State Champion trees and other healthy trees determined by the City Arborist to be within 25% of the State Champion rating or having a diameter within 25% of the State Champion tree for the species in question.

**Owner** - Owner of the real property to be landscaped, including employees, agents, contractors, builders, and all successors thereof.

**Plat** - A schematic representation of land and, where required, of buildings and other structures, as part of a subdivision or site plan, in conformity with the requirements of the Zoning Ordinance and of Chapter 70 of the Chesapeake City Code.

**Preservation Areas** - The area within the drip line of existing vegetation that is to be retained throughout construction on the site. (See Appendix H.) Preservation areas shall be protected in the following manner that is acceptable to the City of Chesapeake.

1. Marking of Limits of Clearing.
  - a. Prior to any disturbance of the site, the preservation areas shall be visibly marked.
  - b. Roots shall be pruned to depth of 30 inches at the drip line of trees designated for retention. (See Appendix F.)
  - c. Preservation areas on the approved plans shall not be altered without the approval of the City of Chesapeake.
2. The owner has the option to retain additional vegetation over and above that which is required by the approved plan. However, additional vegetated areas on the site that are to be preserved must be protected, in a manner approved by the City Arborist, from encroachment by construction activity. If a natural area or individual tree not shown on the plans to be preserved is retained on site, then the owner is required to protect these trees the same as designated preservation areas.
3. Protective devices for preservation areas must remain in place during clearing and construction.
4. Protection of Vegetation Retained

- a. The owner shall be responsible for the protection of tops, trunks and roots of all existing trees, as well as other vegetation that are to be retained on the site. After vegetation has been removed within the area authorized to be cleared, protective devices shall be installed along the limits of clearing prior to any construction work or traffic taking place within the drip line of the vegetation retained on the site. Tree protection shall be maintained until all work in the vicinity has been completed and shall not be removed without the consent of the City of Chesapeake. If the City Arborist finds that the protective devices are insufficient to protect the vegetation retained on the site, additional protective devices, as required by the City Arborist, shall be installed to insure adequate protection.
  - b. Heavy equipment, vehicular traffic, stockpiling of any materials, trenching or deposition of sediment, shall not be permitted within the drip-line of trees to be retained.
  - c. Trees being removed shall not be felled, pushed or pulled into trees being retained. Equipment operators shall maintain a distance of at least 10 feet from the drip line of vegetation to be retained.
  - d. No toxic materials shall be stored within 100 feet of vegetation areas to be retained.
  - e. Fires shall not be permitted within 100 feet of vegetated areas retained unless approved by the City of Chesapeake. All fires shall be limited in size so as not to adversely affect the vegetation.
  - f. No protective devices, sign, utility boxes or other objects shall be nailed to the trees to be retained on the site.
5. Devices - Any device may be used which will effectively protect the roots, trunk and top of the trees and other vegetation retained on the site. The less formidable the barrier used, the greater the care that must be taken to avoid inflicting damage. Personnel working in the vicinity of the vegetation area retained must be instructed to honor the protective devices. The devices for protection outlined below are suggested devices only and are not intended to exclude the use of other devices, which will protect the vegetation retained, subject to the approval of the City Arborist. (Appendix F).



- a. Snow fence/Hi-vis fence - A standard 48-inch high snow fence may be placed at the limits of grading on posts mounted six feet apart.
- b. Filter fabric fence or silt fence - This fencing may be placed at the limits of grading and constructed as specified in Standard 1.06 in the Virginia Erosion and Sediment Control Handbook.
- c. Additional trees - Additional trees may be left standing as protection between the trunks of the trees to be retained and the limits of grading. The trunks of trees in this buffer should be no more than approximately eight feet apart to prevent passage of equipment and material through the buffer. When additional trees are used as protection, the limits of clearing shown on the approved plan shall be flagged in the field so that the additional buffer area is delineated. When this method of protection is used, these additional trees shall be removed prior to completion of the project if required by the City Arborist.
- d. Berm - The temporary perimeter dike which has been constructed for erosion and sediment control may double as a protective device for vegetation to be retained. This temporary perimeter dike shall be constructed as specified in Standard 1.15 in the Virginia Erosion and Sediment Control Handbook and shall be constructed at the limits of clearing outside the drip line of the trees to be preserved.

**Residential Landscaping Plan** - A plan submitted to the Inspections Department upon request for a building permit for a single family home or duplex. A residential landscaping plan is also required for all residential major subdivisions where rear or secondary front yards abut an existing or proposed right-of-way 80 feet or more in width. The plan should include required tree canopy coverage calculations, tree preservation areas, tree preservation methods, and the location of trees to be planted. The plan shall also depict buffer yards and existing and known proposed public and private easements.

**Required Structure** - A fence, wall, or berm to be located within a buffer yard as required by the landscape ordinance. Openings within the barriers may be required by the City of Chesapeake for accessibility to the area.

**Secondary Front Yard** - Any yard having street frontage on a corner lot or through lot other than the yard which the principal building faces.

**Site Analysis** - A plan drawn by a landscape designer and submitted to the City of Chesapeake, which depicts the natural features present in the site, including, but not limited to existing trees, tree preservation areas, general size and location of trees greater than 18" in diameter that fall within limits of construction, easements, water courses, topography, rare or endangered plant material, and existing structures and utilities located on the site. The site analysis may be presented in narrative format only if, based on site conditions, the City Arborist determines that a narrative site analysis will be sufficient.

A site analysis is required as part of the submittal of each preliminary and final subdivision plan, site plan, or erosion and sediment control plan. The site analysis shall include at the same scale as the development plan:

- 1) Existing tree line and natural features on the site.
- 2) Specimen or outstanding trees.
- 3) A narrative of site conditions.
- 4) Rare or endangered plant material.
- 5) Existing structures and utilities located on the site.
- 6) Tree preservation areas and methods of preservation.

**Tree** - Woody vegetation exceeding 5 feet in height.

**Tree Canopy** - All areas of coverage by plant material exceeding five feet in height. This applies to trees that are existing on a site or trees to be planted.

**Tree, Large** - In Appendix A is a list of residential trees that are classified, for the purposes of the landscape and tree preservation ordinance, as large trees. These trees must be 6 - 8 feet in height for single-family and duplex residential lots, and 1 ½ to 2 inches in caliper for multi-family and townhouse residential properties. Each large tree provides 400 square feet of canopy coverage at maturity. Appendix B provides a list of large canopy trees to be planted in nonresidential areas. These trees must be 1 ½ " to 2" in caliper at the time of planting.

**Tree Maturity** - A calculation of the tree canopy at twenty years from the time of planting.

**Tree, Small** - Appendices A and B each provide a list of trees that are classified, for the purposes of the landscape and tree preservation ordinance, as small trees. These trees must be 6 to 8 feet in height at the time of planting. Each small canopy tree provides 200 square feet of canopy coverage at maturity.

**Zoning Intensity** - The relative intensity of zoning classifications as they result in buffer yard requirements as set forth in Section 19-610 of the Zoning Ordinance, Table of Required Buffer Yards.

## **II. LANDSCAPE AND TREE PRESERVATION REVIEW PROCEDURES.**

### **A. Preliminary and Final Landscaping Plan for Multifamily and Commercial Property**

1. A site analysis plan and preliminary landscaping plan shall be submitted to the City of Chesapeake as part of every multifamily and commercial preliminary site plan.
2. The preliminary landscaping plan shall show proposed green space, buffers, landscape areas and existing and known proposed public and private easements. This information shall also be included on the preliminary site plan.
3. A final landscaping plan shall be submitted as part of every final site plan for every multifamily and commercial development.
4. Three copies of the final landscaping plan shall be submitted to the City of Chesapeake for review and approval prior to final site plan approval by the Public Works Department.
5. The final landscaping plan shall include all information included on the final site plan, as well as the location of existing and known proposed utilities and utility easements; location of plant material; a plant list including common name, botanical name, size and spacing of plants; tree preservation areas and preservation methods; and any other treatments such as mulch, seed or sod.
6. The final landscaping plan shall be reviewed and comments will be given to the applicant. If required, the revised final landscaping plan shall be reviewed upon resubmittal and the Public Works and Inspections Departments shall be notified upon approval.

7. Prior to the issuance of a certificate of occupancy by the Inspections Department, a field inspection, requested by the owner, must be conducted by the City Arborist to determine that materials have been installed in accordance with the approved landscaping plan.
  8. If the materials have been installed to the specifications found on the approved landscaping plan and in this manual, the Inspections Department will be notified and, assuming all other inspections have been completed, the Certificate of Occupancy may be issued. If landscaping is delayed due to certain circumstances referenced in the Zoning Ordinance, a temporary Certificate of Occupancy may be issued.
- B. Preliminary Subdivision and Residential Landscaping Plan Approval Procedures
1. A site analysis plan and a preliminary landscaping plan shall be submitted to the City of Chesapeake with every preliminary subdivision plat for residential major subdivisions where rear or secondary front yards abut an existing or proposed right-of-way 80 feet or more in width.
  2. The preliminary landscaping plan shall depict the approximate location of the trees to be retained, trees to be planted, a detailed plant list, specifications for preservation and planting of required trees, buffer yards, green space and existing and known proposed public and private easements.
  3. A final landscaping plan for residential development shall be submitted as part of the building permit application for a single-family or two-family residence and as part of any final subdivision plan for a residential major subdivision where rear or secondary front yards abut an existing or proposed right-of-way 80 feet or more in width.
  4. Buffer yards required as part of a final subdivision plan for residential major subdivisions shall be depicted on the final subdivision plat to be recorded in the Clerk's Office of the Circuit Court. The plat shall contain a note stating that no structures are permitted in the buffer yards and that all plant materials therein are to be maintained.
  5. Upon approval of the residential landscaping plan by the City Arborist, the Inspections Department may issue a building permit for the residential lot or lots shown on the approved plan.

6. If trees indicated on the landscaping plan for preservation are found to be severely damaged, as determined by the City Arborist, the City of Chesapeake will require replacement in order to meet the canopy coverage calculations as set forth in the landscape ordinance prior to the issuance of a final Certificate of Occupancy.

### **III. TREE PRESERVATION.**

#### **A. Stresses of Construction**

Construction activities expose trees to a variety of stresses resulting in injury ranging from superficial wounds to death. An understanding of these stresses is helpful in planning for tree protection.

##### **1. Surface Impacts.**

Natural and man-related forces exerted on the tree above the ground can cause significant damage.

- a. Wind damage - Removal of some trees from groups will expose the survivors to greater wind velocities. Trees tend to develop anchorage where it is most needed. Isolated trees develop anchorage rather equally all around, with stronger root development on the side of prevailing winds. The more a tree is protected from the wind, the less secure is its anchorage. The result of improper thinning or clearing is often wind thrown trees.
- b. Excessive pruning - Unprotected trees are often "topped" or carelessly pruned to prevent interference with utility wires or buildings. When too many branches are cut, the tree may not be able to sustain itself. Pruning should be done with consideration of growth habit and using proper techniques to reduce opportunities for decay. If the branches are not pruned correctly, decay may occur. (See Appendix D.)
- c. Trunk damage - Tree trunks are often nicked or scarred during construction. Superficial wounds provide access to insects and disease. Bark wounds shall be treated to reduce these problems. (See Appendix D.)

2. Root Zone Impacts

- a. Raising the grade as little as four inches can retard the normal exchange of air and roots may suffocate due to lack of oxygen, or be damaged by toxic gases and chemicals released by soil bacteria.
- b. Raising or lowering the grade may affect the water table.
- c. Deep fills and relatively impervious fills may retard the normal exchange of soil gases and air to such a degree that root mortality occurs.
- d. Shallow fill over heavy turf or thick leaf litter can cause root mortality.
- e. Shallow cuts of five to eight inches will remove most of the top soil, natural mulch and ground vegetation, removing some feeder roots and exposing the rest to drying and freezing.
- f. Deep cuts may sever a large portion of the root system, depriving the tree access to nutrients and reducing essential anchor roots.
- g. Trenching is often necessary to facilitate the installation of utility lines the construction of buildings, driveways, walkways, curbing and guttering. Trenching or excavating through a tree's root zone can eliminate much of the root system. Trees suffering such damage usually die within two to five years.
- h. Tunneling usually causes less disturbance and mortality of the root system, and where pipe can be driven under a tree's root system, the physiological impact is lessened considerably.
- i. Compaction of the soil within the drip line of a tree by equipment operation, materials storage, or paving can block off air and water from roots.
- j. Construction chemicals or refuse disposed of in the soil can change soil chemistry or be toxic to trees.

B. Site Planning for Tree Protection

1. If the lot size allows, trees to be saved should be selected prior to siting the building. No tree should be destroyed or damaged in any manner until the design of buildings and utility systems are final.
2. Critical areas such as steep slopes, and wetlands, should be left in their natural condition or only partially developed as open space.
3. Roadways are to be located where they would cause the least damage to valuable stands. The original contours should be followed, where feasible, to minimize cuts and fills.
4. Trenching should be minimized, where possible, by locating several utilities in the same trench. Excavations for utilities shall be located outside the drip line of trees which are to be preserved to meet canopy requirements, proffers or stipulations.
5. Construction material storage areas, construction entrances, and worker parking shall be noted on the site plan, and located where they will not impact trees to be retained.
6. When retaining existing trees in parking areas, enough ground around the tree should be left to allow for its survival or grass pavers should be used to allow air and moisture to reach the tree roots.

C. Guide for Selection of Trees to Be Retained

1. Grading - Consideration must be given to the proximity of proposed grading to the trees and other vegetation retained. Mechanical grading shall not take place within the drip line of trees retained unless approved by the City Arborist.
2. Tolerance to Sudden Exposure - Consideration should be given to the tolerance of the trees and other vegetation to the new environmental conditions such as increased direct sunlight, increased radiant heat from proposed buildings and pavement, and increased exposure to wind. Trees with a strong tap or fibrous root system should be given priority over those with a weak root system.
3. Water Table - Consideration should be given to the effect of grading on the water table and its accompanying effect on trees and other vegetation

retained. Grades that are lowered will cause the water table to drop which will reduce the ground water available to the vegetation.

4. Outstanding Specimens - Trees and other vegetation of impressive size or shape, of historical significance, or rare species shall be preserved if possible.
5. Appearance - Trees with a well developed crown should generally be given preference over those with misshapen crowns or trunks, those with a small crown at the top of a tall trunk or those with narrow, V-shaped crotches. Trees grown in the open usually possess better form than those which are grown in the woods.
6. Wildlife Value - The retention of trees and other vegetation is desirable to provide a good source of food, cover and nesting sites for wildlife. Example: Oaks, Hickories, and Dogwoods have a high food value.
7. Other Vegetation - Consideration should be given to other vegetation growing in the immediate area. Examples: Virginia Pine, which would not be of particular value if growing with hardwoods, would increase in value if this were the only species present on the site, trees which have been standing alone are of higher value than those in a wooded situation.
8. Health and Disease Susceptibility - Trees should be checked for scarring caused by fire or lightening, insect or disease damage, and rotted or broken trunks or limbs. Pest and pollution resistant trees are preferred when considered for retention.
9. Clusters - Where trees to be retained are growing in clusters in their natural state, retaining these clusters may improve survival.
10. Age - Potential life span should be evaluated based on preceding factors and genetic potential.

#### **IV. GUIDE FOR SELECTION OF TREES TO BE PLANTED.**

##### **A. Proposed Development**

The mature height and spread of the trees shall be considered to ensure that they will not interfere with the proposed structures and overhead utilities. The root development characteristics shall be considered to ensure that they will not cause interference with walls, walks, drives, patios, and other paved surfaces or affect water and sewer lines, septic systems or underground drainage systems.



B. Proposed Use

The proposed use of the developed area shall be considered. Trees which exhibit a tolerance to air pollution should be selected if a large amount of air pollution will be present. Trees which are suitable for buffering or screening should be selected if noise or objectionable views are going to be a problem. (Evergreens provide more effective buffering and screening than deciduous trees). Trees should be selected which can tolerate de-icing salts if there is a chance these will be used.

C. Landfills

The proximity to landfills should be considered. Generated gases can travel underground for a considerable distance to kill trees by displacement of oxygen.

D. Life Span

Preference should be given to trees with long life spans.

E. Resistance to Disease and Insects

Trees that are known to be resistant to attacks by disease or insects should be given preference to those known to be susceptible.

F. Aesthetic Value

Consideration should be given to flowering habits, autumn foliage, bark and crown characteristics, and type of fruit.

**V. STANDARDS FOR FIELD PRACTICE.**

A. Grade Changes

1. Lowering Grade - Grade cuts of 5 inches or more which, in the determination of the City of Chesapeake, are harmful to trees, shall be reduced or eliminated within the drip line of trees to be retained by the construction of a tree wall. (See Appendix G.) Once grade has been lowered, the wall shall be constructed within two weeks.

a. Roots should be pruned to a depth of 30" prior to excavation. When excavating, all tree roots that are exposed and/or damaged should be trimmed cleanly, and covered temporarily with moist

- peat moss, burlap or other suitable material to keep them from drying out.
- b. Tree walls should be constructed in accordance with Tree Wall Detail. In some cases a building permit may be required.
  - c. The backfill should consist of top soil to retain moisture and aid root development.
  - d. Fertilizer should be applied according to Virginia Cooperative Extension Publication 430-018 (1989), entitled "Fertilizing Landscape Trees and Shrubs."
  - e. Pruning shall be conducted in accordance with ANSI standards and recommendations.
  - f. A means for drainage through the wall should be provided so water will not accumulate behind the wall. Weep holes should be provided with a solid masonry wall.
2. Raising Grade - When fill of four inches or more is necessary within the drip line of a tree to be retained, a tree well may be required and should be installed prior to any filling. The following method should be used to ensure survival of the tree.
- a. Before making a fill, the green vegetation, sod, leaf litter and other organic matter from beneath the tree should be removed and the surface soil loosened without damaging the roots.
  - b. Fertilizer should be applied according to Virginia Cooperative Extension Publication 430-018 (1989), entitled "Fertilizing Landscape Trees and Shrubs."
  - c. The dry well, should be constructed so as to allow for tree trunk growth. Clearance for a younger tree should be greater than that for an older tree.
  - d. The well should be built high enough to bring the top just above the level of the proposed fill.

- e. The well should be constructed of large stones, brick, building tile, concrete blocks, or cinder blocks with care being taken to ensure that ample openings are left through the wall of the well to allow for free movement of air and water. Mortar should be used only near the top of the well and only above the porous fill. Well construction should be in substantial compliance with Appendix I.
- f. One or more drain lines should begin at the lowest point inside the well and extend down and outward from the tree trunk. Additional drain lines should also radiate out from the well wall with vertical tiles and/or pipes being used if fills over two feet are contemplated.
- g. Tar paper or approved equivalent should be placed over the tile and/or pipe joints to prevent clogging and large stones and should be placed around and over the drain tiles and/or pipes for protection.
- h. Filling shall be completed by hand with porous soil such as top soil until the desired grade is reached.
- i. To prevent clogging of the drain lines, crushed stone shall be placed inside the dry well over the openings of the radial tiles. Vertical tiles shall also be filled with crushed rock and may also be covered with a screen.
- j. The area between the trunk and the well wall may either be covered by an iron grate or filled with a 50-50 mixture of crushed charcoal and sand, if desired for safety or vector control.

## B. Trenching and Tunneling

- 1. If in the determination of the City Arborist, a tree or group of trees shown to be preserved on the approved plans is of significant value or importance, the City of Chesapeake may determine whether trenching or tunneling is required when working within the drip line of these trees.
- 2. Trenching shall be done outside the drip line of the tree unless otherwise approved by the City Arborist so as to reduce the amount of root area damaged or killed by trenching activities and to preserve trees to meet canopy requirements, or proffers and stipulations.

3. Tunneling shall be conducted in accordance with accepted horticultural techniques.
4. The avoidance of large roots or root concentrations may be accomplished by curving the trench or by tunneling under large roots in areas that do not have a large tap root.
5. Roots should not be left exposed to the air. The ends of damaged and cut roots should be cut off smoothly and covered with soil or protected and kept moistened with wet burlap or peat moss until the trench can be filled.
6. Trenches and tunnels shall be filled as soon as possible. Air spaces in the soil should be avoided by careful filling. When it is necessary that trenches be left open for purposes of inspection of utilities, the inspection should be scheduled as soon as possible after opening of the tunnel or trench.
7. The tree should be mulched and fertilized to conserve moisture and stimulate new root growth and enhance general tree vigor. Fertilize according to Virginia Cooperative Extension Publication 430-018 (1989), entitled "Fertilizing Landscape Trees and Shrubs."
8. If a significant amount of root system has been damaged or killed, pruning should be minimized to stimulate root regeneration.

C. Dead or Dying Trees

1. In the event any tree or portion thereof which is dead or dying due to construction or environmental changes brought about by construction and/or clearing poses a hazard to either life or property, the permittee may be required to take such action as requested by the City Arborist to eliminate the hazard.
2. Trees which are removed by the permittee should be cut down to within 2 inches of the final grade.
3. If a stump created by the removal of a hazardous tree is determined by the City Arborist to pose a hazard then the stump should be removed by acceptable means in conjunction with the removal of the tree.

4. If any trees shown on the approved plan to be saved are dead or dying due to acts of negligence by the permittee, they should be removed and replaced if they contribute to the required canopy.

**D. Pruning**

1. All pruning of branches should be done according to proper American National Standards Institute recommendations. (See Appendix D).
2. Crepe myrtles or other trees shall not be "topped." Any trees "topped" rather than pruned according to the American National Standards Institute (ANSI) will be required to be removed and replaced.

**E. Repair of Damage**

1. Any damage to the crown, trunk or root system of trees retained on the site shall be repaired immediately.
2. Branches - All damaged branches shall be cut off cleanly. (See Appendix D.)
3. Bark - All jagged bark wounds shall be cut clean immediately by making all edges smooth and rounding the wounds at the top and the bottom. (See Appendix D.) In the event that callous growth has already started to grow, it should not be removed when trimming the wound.
4. Roots - Damaged roots shall be cut off cleanly behind the damage and covered with topsoil immediately.

**VI. PLANTING.**

**A. Substitutions**

The trees and shrubs that are planted shall be of the species and size specified on the approved plans unless a written request for the substitutions have been submitted and approved by the City Arborist prior to planting. Undesirable substitutions (see Appendix C) that have been planted without prior approval by the City of Chesapeake may be required to be removed and replaced with acceptable species.

B. Material

1. Trees and shrubs shall be nursery grown unless otherwise approved and be healthy and vigorous plants, free from defects, decay, disfiguring roots, sun scald, injuries, abrasions of the bark, plant diseases, insect pest eggs, borers and all forms of infestations of objectionable disfigurements as determined by the City Arborist. Plants shall be in accordance with the current American Association of Nurserymen's standards and conform in general to representative species.
2. Balled and burlapped trees and shrubs should be dug with firm, natural balls of earth of adequate size as specified by the American Association of Nurserymen, "American Standard for Nursery Stock," with the balls securely wrapped.
3. Container grown stock should have grown in a container long enough for the root system to have developed sufficiently to hold its soil together.
4. All plant material shall meet the following specifications at the time of planting.
  - a. Shrubs used for low screening shall be a minimum of 18 to 24 inches in height, balled and burlapped and shall comply with American Nursery Standards.
  - b. Larger shrubs used for buffering uses shall be a minimum of 30 to 36 inches in height container plants and shall comply with American Nursery Standards.
  - c. Small trees used for landscaping or canopy cover calculations shall be a minimum of 6 to 8 feet in height at planting and shall comply with American Nursery Standards.
  - d. Large trees used for landscaping or tree canopy cover calculation shall be a minimum of 6 to 8 feet in height for single-family and duplex residential lots and 1½ to 2 inches caliper for nonresidential and multifamily and townhouse residential developments at planting and shall comply with American Nursery Standards.

5. Calculating Canopy Coverage - The formula for calculating tree replanting for canopy coverage required by ordinance is as follows:

$$\frac{A \times B}{C} = D$$

- A) Percentage of site requiring coverage as set forth by the zoning ordinance.
- B) Calculation area as set forth in the Definitions section of the Chesapeake Landscape Specifications Manual, expressed in square feet
- C) Total number of square feet of new canopy provided as stated in this section and Appendix A
- D) Number of trees to be provided (by square feet of canopy).

When using varying sizes of trees, the total square footage of new canopy provided must equal the required percentage of the site calculation area.

Large trees (see Appendices A and B) shall be 6 - 8 feet in height for single-family and duplex residential lots and 1 ½ - 2 inches caliper for nonresidential and multifamily and townhouse residential at planting and will count for 400 square feet of canopy coverage.

Small trees shall be 6-8 feet tall at planting and will count for 200 square feet of canopy coverage.

An example of canopy coverage calculation requirements for single-family and duplex residential lots, allowing for a credit of 2,000 square feet for house footprint, is as follows:

Lot Size	5,000	10,000	12,000	15,000	20,000	½ acre+
Large Tree, or	2	4	5	7	9	11
Small Tree	3	8	10	13	18	21

Combinations of large and small trees may be utilized to achieve the required coverage. Trees not listed under Appendix A or B must be approved by the City Arborist. Specific lot canopy requirements will vary somewhat depending on the actual calculation areas.

C. Delivery and Temporary Storage

1. Plants shall be protected during delivery.
2. Trees and shrubs shall be planted as soon as possible. The owner shall protect unplanted trees by keeping them in shade, well protected with soil, mulch or other acceptable material and should keep trees well watered.

D. Planting

1. All trees and shrubs shall be planted in such a manner as to ensure their survival. This shall include the planting of intact balls, planting at the proper depth, properly backfilling and watering, and construction of a planting saucer. See example in Appendix E.
2. Any rope or wire binding the ball shall be cut prior to the conclusion of backfilling operations to prevent girdling of the tree trunk.
3. If a non-biodegradable material is used around the ball, it shall be completely removed prior to backfilling.
4. Prior to installation, the roots of container grown stock shall be separated or split to ensure proper root development.
5. The following planting seasons are recommended:

Evergreen Shrubbery	Sept. - May
Deciduous Shrubbery & Trees	Oct. 15 - April 15
Evergreen Trees	Nov. 14 - March 31

E. Guying and Staking

Trees shall be guyed or staked to keep them in a vertical position only if planted on a windy site, on a hill, or under other such conditions which, in the opinion of the City Arborist, warrant staking. See Appendix E.

F. Mulching

1. All trees and shrubs should be properly mulched after planting, to a minimum depth of 2 inches, with an appropriate mulch such as pine bark, pine needles, or shredded bark.



2. Mulch should cover the entire plant saucer.

G. Fertilization

Fertilization shall be conducted in accordance with the Virginia Cooperative Extension Publication 430-018 (1989), entitled "Fertilizing Landscape Trees and Shrubs."

**VII. WAIVERS.**

Section 19-606 of the Landscape Ordinance allows waivers and modifications to planting, preservation, buffer yard and green space requirements upon the satisfaction of specific criteria and upon the joint approval of the City Arborist and the Planning Director or designee.

It is the further intent of City Council that no substantial waiver or modification be granted under Section 19-606 of the Landscape Ordinance without first consulting with two members of the Planning Commission appointed by the Chairman to serve on the landscape review committee.

Whether a waiver or modification is deemed "substantial" shall be determined jointly by the City Arborist and the Planning Director or designee using the following criteria:

1. Any decrease in buffer yards by two or more categories (e.g., reduction of Buffer Yard E to Buffer Yard C) or the elimination of a buffer yard shall be deemed substantial.
2. The elimination of any required structure (e.g. fence or wall) from a buffer yard shall be deemed substantial.
3. The elimination of a green space at the end of a row of parking spaces containing 7 or more spaces shall be deemed substantial.
4. Any waiver or modification which will affect buffer yards, green spaces, planting requirements or preservation requirements referenced in or governed by a proffer or stipulation shall be deemed substantial.
5. Any other changes deemed substantial by the City Arborist or Planning Director given the totality of the circumstances.

In no event shall any waiver or modification be made in derogation of, or in contravention to, a proffer or stipulation.

**APPENDIX A**  
**RESIDENTIAL TREES**

<b>SMALL TREES 6' TO 8' AT PLANTING CANOPY COVER 200 SQUARE FEET</b>	
<b>BOTANICAL NAME</b>	<b>COMMON NAME</b>
<u>Acer buergeranum</u>	Trident Maple
<u>Acer campestre</u>	Hedge Maple
<u>Acer griseum</u>	Paperbark Maple
<u>Amelanchier canadensis</u>	Serviceberry
<u>Betula nigra (dwarf cultivar)</u>	River Birch (dwarf)
<u>Carpinus betulus</u>	European Hornbeam/Ironwood
<u>Carpinus caroliniana</u>	American Hornbeam
<u>Cercis canadensis</u>	Red Bud
<u>Chioanthus virginicus</u>	White Fringe Tree
<u>Cornus florida</u>	Flowering Dogwood
<u>Cornus kousa</u>	Kousa Dogwood
<u>Cornus mas</u>	Cornelian Cherry
<u>Crataegus phaenopyrum</u>	Washington Hawthorn
<u>Halesia carolina</u>	Carolina Silverbell
<u>Ilex opaca</u>	American Holly
<u>Koelreuteria paniculata</u>	Golden Rain Tree
<u>Lagerstroemia</u>	Crape Myrtle (all species and cultivars except Dwarf and Semi-Dwarf)
<u>Magnolia soulangeana</u>	Saucer Magnolia

<b>SMALL TREES  6' TO 8' AT PLANTING  CANOPY COVER 200 SQUARE FEET</b>	
<b>BOTANICAL NAME</b>	<b>COMMON NAME</b>
<u>Magnolia stellata</u>	Star Magnolia
<u>Magnolia virginiana</u>	Sweet Bay Magnolia
<u>Malus</u>	Flowering Crabapple (all species and cultivars)
<u>Ostrya virginiana</u>	American Hophornbean
<u>Oxydendrum arboreum</u>	Sourwood
<u>Pinus nigra</u>	Austrian Pine
<u>Prunus serrulata</u>	All Cultivars
<u>Prunus subhirtella pendula</u>	Weeping Cherry
<u>Prunus yedoensis</u>	All Cultivars
<u>Pyrus calleryana "Aristocrat"</u>	Approved Callery Pear Cultivars
<u>Quercus acuta</u>	Japanese Evergreen Oak
<u>Quercus robur "Fastigiata"</u>	Pyramidal English Oak
<u>Sophora japonica</u>	Pagoda Tree (all cultivars)
<u>Stewartia monadelphica</u>	Tall Stewartia
<u>Styrax japonicus</u>	Japanese Snowbell Tree

APPENDIX A Continued..

RESIDENTIAL TREES CONTINUED....

<b>LARGE TREES</b> <b>6 TO 8 FEET FOR SINGLE-FAMILY AND DUPLEX RESIDENTIAL LOTS</b> <b>AND 1 ½ TO 2 INCHES CALIPER FOR MULTI-FAMILY AND</b> <b>TOWNHOUSE RESIDENTIAL AT PLANTING</b> <b>CANOPY COVER 400 SQUARE FEET</b>	
BOTANICAL NAME	COMMON NAME
<u>Acer rubrum</u>	All Cultivars
<u>Betula nigra</u>	River Birch
<u>Celtis (all species)</u>	Hackberry
<u>Cercidiphyllum japonicum</u>	Katsura Tree
<u>Fraxinus pennsylvanica</u>	Green Ash
<u>Fraxinus pennsylvanica `Marshall's Seedless'</u>	Green Ash `Marshall's Seedless'
<u>Ginkgo biloba</u>	Ginkgo (male variety - Maidenhair)
<u>Liriodendron tulipifera</u>	Tulip Poplar
<u>Magnolia grandiflora</u>	Southern Magnolia
<u>Metasequoia glyptostroboides</u>	Dawn Redwood
<u>Nyssa sylvatica</u>	Black Gum
<u>Pinus elliottii</u>	Slash Pine
<u>Pinus taeda</u>	Loblolly Pine
<u>Platanus acerifolia 'Bloodgood'</u>	'Bloodgood' London Plane
<u>Platanus occidentalis</u>	American Sycamore
<u>Quercus acutissima</u>	Sawtooth Oak
<u>Quercus alba</u>	White Oak

<b>LARGE TREES</b> <b>6 TO 8 FEET FOR SINGLE-FAMILY AND DUPLEX RESIDENTIAL LOTS</b> <b>AND 1 ½ TO 2 INCHES CALIPER FOR MULTI-FAMILY AND</b> <b>TOWNHOUSE RESIDENTIAL AT PLANTING</b> <b>CANOPY COVER 400 SQUARE FEET</b>	
BOTANICAL NAME	COMMON NAME
<u>Quercus bicolor</u>	Swamp White Oak
<u>Quercus coccinea</u>	Scarlet Oak
<u>Quercus darlingtonia</u>	Darlington Oak
<u>Quercus macrocarpa</u>	Bur Oak (favors moist soil)
<u>Quercus prinus</u>	Chestnut Oak
<u>Quercus nigra</u>	Water Oak
<u>Quercus phellos</u>	Willow Oak
<u>Quercus robur</u>	English Oak
<u>Quercus robur 'Fastigiata'</u>	Pyramidal English Oak
<u>Quercus velutina</u>	Black Oak
<u>Quercus virginiana</u>	Live Oak
<u>Taxodium distichum</u>	Bald Cypress
<u>Tilia cordata</u>	Little Leaf Linden (all cultivars)
<u>Zelkova serrata</u>	Japanese Zelkova
<u>Zelkova serrata</u> <u>'Village Green'</u>	'Village Green' Zelkova

**APPENDIX B**

**NONRESIDENTIAL STREET, BUFFER AND PARKING LOT TREES**

<b>SMALL TREES                      6 TO 8 FEET TALL AT PLANTING                      MAXIMUM SPACING 30 FEET                      CANOPY COVER 200 SQUARE FEET</b>	
BOTANICAL NAME	COMMON NAME
<u>Acer buergeranum</u>	Trident Maple
<u>Acer griseum</u>	Paperbark Maple
<u>Betula nigra (dwarf cultivars)</u>	River Birch (dwarf cultivars)
<u>Cornus kousa</u>	Kousa Dogwood
<u>Crataegus phaenopyrum</u>	Washington Hawthorn (large thorns)
<u>Crataegus Spp</u>	Hawthorne
<u>Koelreuteria paniculata</u>	Golden Rain Tree
<u>Lagerstroemia</u>	Crape Myrtle (all species and cultivars except Dwarf and Semi-Dwarf species and cultivars)
<u>Oxydendrum arboreum</u>	Sourwood
<u>Prunus serrulata</u>	All Cultivars
<u>Prunus yedoensis</u>	All Cultivars
<u>Quercus acuta</u>	Japanese Evergreen Oak
<u>Quercus robur 'Fastigiata'</u>	Pyramidal English Oak
<u>Sophora japonica</u>	Pagoda Tree (all cultivars)

\* Small trees may be used in parking lots only in extenuating circumstances subject to the approval of the City Arborist.

APPENDIX B Continued ...

**STREET, BUFFER AND PARKING LOT TREES CONTINUED**

<b>LARGE TREES 1 ½ TO 2 INCHES CALIPER AT PLANTING MAXIMUM SPACING 60 FEET CANOPY COVER 400 SQUARE FEET</b>	
BOTANICAL NAME	COMMON NAME
<u>Acer rubrum</u>	Red Maple (All Cultivars)
<u>Betula nigra</u>	River Birch
<u>Celtis (all species)</u>	Hackberry
<u>Cercidiphyllum japonicum</u>	Katsura Tree
<u>Fraxinus pennsylvanica</u>	Green Ash
<u>Fraxinus pennsylvanica "Marshall's Seedless"</u>	Green Ash "Marshall's Seedless"
<u>Ginkgo biloba</u>	Ginkgo (male variety) Maidenhair
<u>Metasequoia glyptostroboides</u>	Dawn Redwood
<u>Nyssa sylvatica</u>	Black Gum
<u>Platanus acerifolia</u>	"Bloodgood" London Plane
<u>Quercus acutissima</u>	Sawtooth Oak
<u>Quercus bicolor</u>	Swamp White Oak
<u>Quercus coccinea</u>	Scarlet Oak
<u>Quercus darlingtonia</u>	Darlington Oak
<u>Quercus macrocarpa</u>	Bur Oak (favors moist soil)
<u>Quercus nigra</u>	Water Oak
<u>Quercus phellos</u>	Willow Oak
<u>Quercus prinus</u>	Chestnut Oak

<b>LARGE TREES</b> <b>1 ½ TO 2 INCHES CALIPER AT PLANTING</b> <b>MAXIMUM SPACING 60 FEET</b> <b>CANOPY COVER 400 SQUARE FEET</b>	
BOTANICAL NAME	COMMON NAME
<u>Acer rubrum</u>	Red Maple (All Cultivars)
<u>Betula nigra</u>	River Birch
<u>Celtis (all species)</u>	Hackberry
<u>Cercidiphyllum japonicum</u>	Katsura Tree
<u>Quercus robur</u>	English Oak
<u>Quercus velutina</u>	Black Oak
<u>Quercus virginiana</u>	Live Oak
<u>Taxodium distichum</u>	Bald Cypress
<u>Tilia cordata</u>	Little Leaf Linden (all cultivars)
<u>Zelkova serrata</u>	Japanese Zelkova
<u>Zelkova serrata "Green Vase"</u>	"Green Vase" Zelkova
<u>Zelkova serrata "Village Green"</u>	"Village Green" Zelkova



**APPENDIX C**

**UNDESIRABLE TREE SPECIES**

<b>BOTANICAL NAME</b>	<b>COMMON NAME</b>	<b>PROBLEM</b>
<u>Acer negundo</u>	Box Elder	Weak wood, short lived insects
<u>Acer saccharinum</u>	Silver Maple	Weak wood, insects, shallow roots, prolific seeding
<u>Ailanthus altissima</u>	Tree of Heaven	Offensive odor (male), poor landscape qualities
<u>Albizia julibrissin</u>	Mimosa	Mimosa Wilt Disease
<u>Betula papyrifera</u>	Paper Birch	Insects
<u>Catalpa bignonioides</u>	Southern Catalpa	Messy flowers
<u>Cedrus deodora</u>	Deodora Cedar *	Heat stress decline *
<u>Ginkgo biloba</u>	Ginko (female plant)	Offensive fruit odor
<u>Laburnum anagyroides</u>	Golden Chain Tree	Environmental stress
<u>Magnolia grandiflora</u>	Southern Magnolia *	Shallow roots, seed pods *
<u>Melia azedarach Seed</u>	Chinaberry	Weak wood, suckers
<u>Morus species</u>	Mulberries	Objectional fruit
<u>Paulownia tomentosa</u>	Empress Tree	Seed pods
<u>Pinus sylvestris</u>	Scotch Pine	Environmental stress, (heat, poor drainage, insects)
<u>Pinus thunbergi</u>	Japanese Black Pine *	Insects *
<u>Populus alba</u>	White or Silver Poplar	Weak wood, diseases

<b>BOTANICAL NAME</b>	<b>COMMON NAME</b>	<b>PROBLEM</b>
<u>Populus deltoides</u>	Eastern Cottonwood	Weak wood, extensive root system, prolific seeding
<u>Populus nigra</u>	Lombardy Poplar	Extensive root system, short lived, diseases
<u>Prunus serotina</u>	Black Cherry	Objectionable fruit
<u>Pyrus calleryana "Bradford"</u>	Bradford Pear *	Structural weakness
<u>Salix</u>	Willow *	Weak wood, roots
<u>Ulmus americana</u>	American Elm	Dutch Elm Disease
<u>Ulmus pumila</u>	Siberian Elm	Short lived, insects

\* Undesirable as a street tree only.

# PRUNING DAMAGED BRANCHES

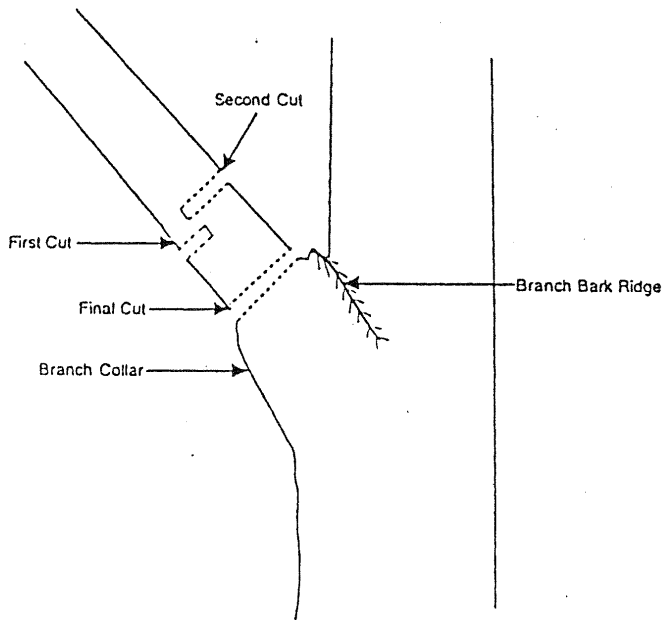


Figure 1 - Removing a large lateral branch requires two preliminary cuts before the final cut.

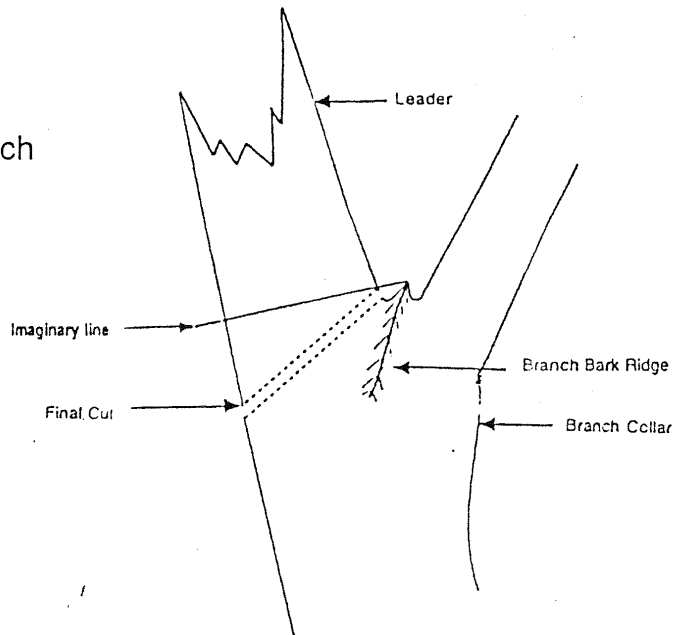


Figure 2 - When cutting back to a lateral, bisect the angle between the branch bark ridge and an imaginary line perpendicular to the leader or the branch being removed.

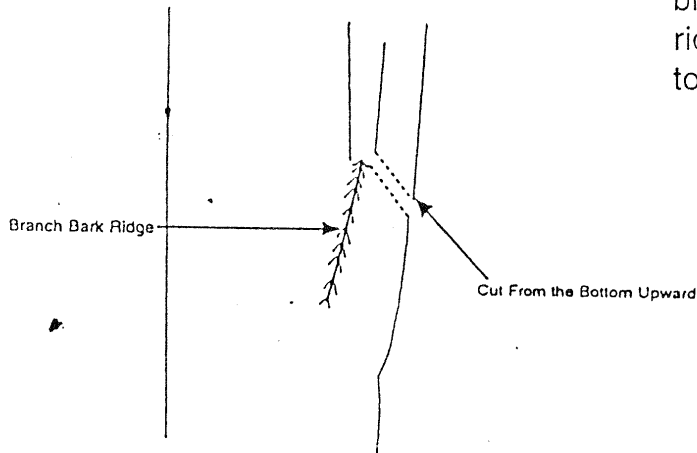
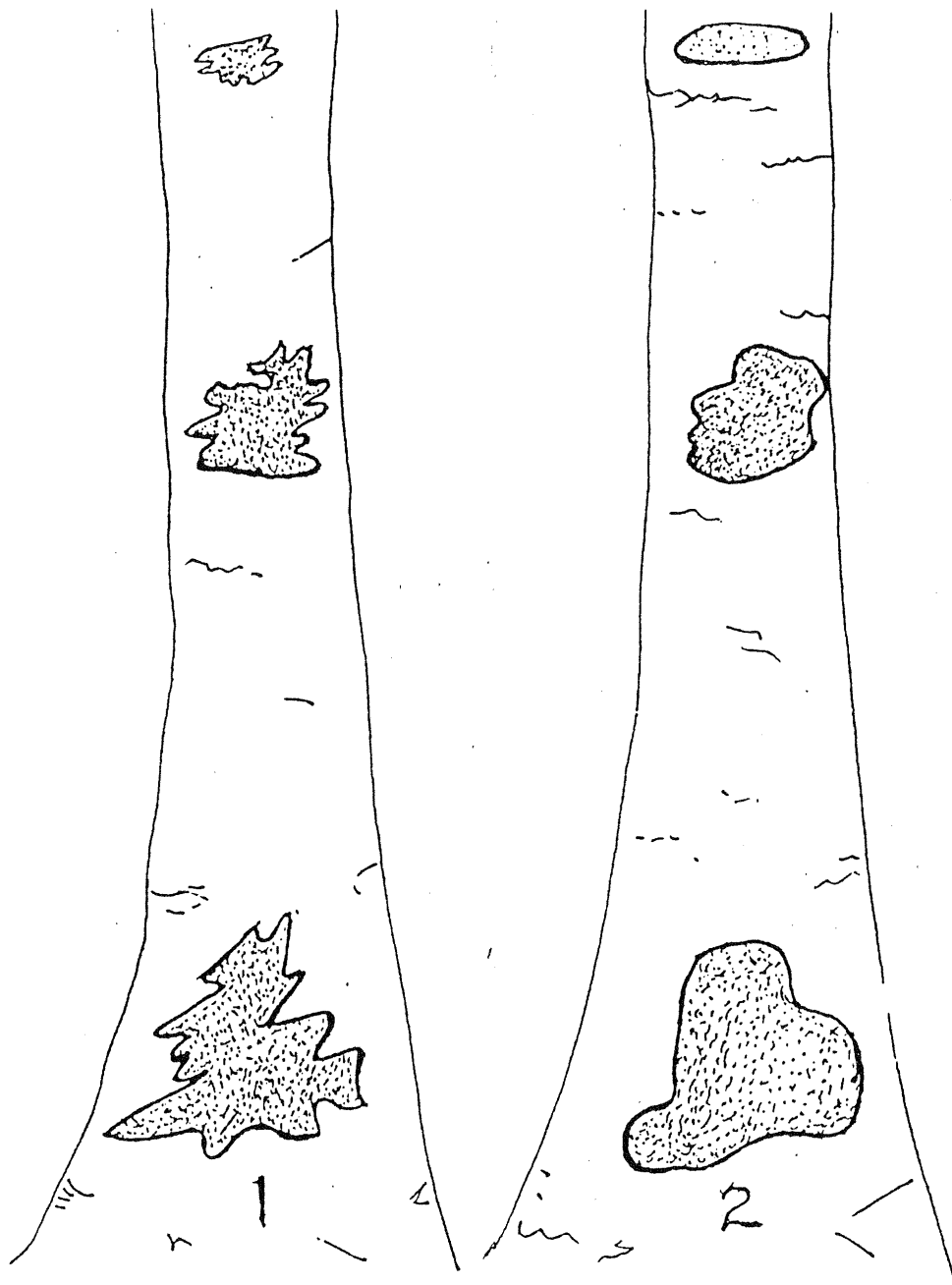
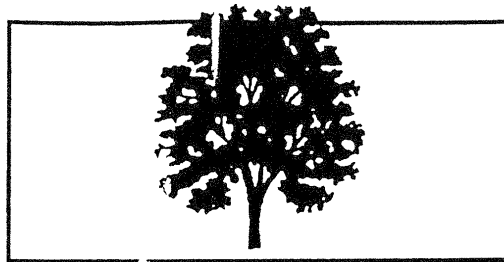


Figure 3 - When removing a branch with a narrow branch attachment, cut from the bottom upward.



When scribing wounds (1), make rounded, shallow cuts (2). Do not use wound dressing.



## Tree and Shrub Planting Guidelines

Bonnie Lee Appleton and Susan French\*

### Plant and Site Selection

Select trees and shrubs well-adapted to conditions of individual planting sites. Poorly-sited plants are doomed from the start, no matter how carefully they're planted.

**Test soil drainage before planting.** Dig a test hole as deep as your planting hole and fill with water. If water drains at a rate of less than one inch per hour, consider installing drainage to carry water away from the planting hole base, or moving or raising the planting site (berm construction).

Also consider using more water-tolerant species. For trees, try red maple, sycamore, bald cypress, willow oak, or river birch. For shrubs, try inkberry, redbud dogwood and buttonbush. Avoid dogwoods, azaleas, boxwoods, Japanese hollies, and other plants that don't like "wet feet" where drainage is poor.

**Examine soil for compaction before planting.** If soils are compacted, consider replacement with a good loam soil, or incorporation of several inches of an organic material such as composted yard waste to a depth of at least 8 inches over the entire planting area. Do not incorporate small quantities of sand - compaction will increase and drainage decrease.

### Site Preparation

**Dig shallow planting holes two to three times as wide as the root ball.** Wide, shallow holes encourage horizontal root growth that trees and shrubs naturally produce.

In well-drained soil, dig holes as deep as the root ball. In poorly-drained heavy clay soil, dig holes one to two inches shallower than the root ball. Cover the exposed root ball top with mulch.

Don't dig holes deeper than root balls or put loose soil beneath roots because loose soil will compact over time, leaving trees and shrubs planted too deep. Widen holes near the soil surface where most root growth occurs. Score walls of machine-dug (auger, backhoe) holes to prevent glazing.

Backfill holes with existing unamended soil. Do not incorporate organic matter such as peatmoss into

backfill for individual planting holes. Differences in soil pore sizes will be created causing problems with water movement and root growth between the root ball, planting hole, and surrounding soil.

Backfill half the soil, then water thoroughly to settle out air pockets. Finish backfilling, then water again. Cover any exposed root ball tops with mulch.

Incorporate slow-release granular fertilizers into backfill soil to provide nitrogen, or if a soil test indicates a need for phosphorus or potassium. Avoid using fast-release agronomic fertilizers that can dehydrate tree roots. Use no more than 1# actual nitrogen per 1,000 ft. of planting hole surface. (Example - if using 18-6-12 with a 5' diameter hole, incorporate 0.3 oz. per planting hole.)

### Tree and Shrub Preparation

Closely inspect the wrapping around root balls of B&B (balled and burlapped) trees and shrubs. Growers use many synthetic materials, as well as burlap treated to retard degradation, to wrap root balls. Many of these materials will not degrade. To insure root growth into surrounding soil, remove pinning nails or rope lacing, then cut away or drop the wrapping material to the bottom of the planting hole, backfilling over it.

Wire baskets used to protect root balls degrade very slowly underground. Remove the top 8-12 inches of wire to keep equipment from getting caught in wire loops, and surface roots from girdling.

Remove all rope, whether jute or nylon, from trunks. Again, degradation is slow or nonexistent, and ropes can girdle trunks and roots.

Remove plastic containers from container-grown trees and shrubs. For plants in fiber pots, break away the top or remove the pot entirely. Many fiber pots are coated to extend their shelf life, but this slows degradation below-ground and retards root extension.

If roots are circling around the root ball exterior, cut through the roots in a few places. Cutting helps prevent circling roots from eventually girdling the trunk. Select trees grown in containers with vertical ribs or a copper-

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treatment on the interior container wall. These container modifications and treatments minimize circling root formation.

### Tree Care After Planting

Remove tags and labels from trees and shrubs to prevent girdling branches and trunks.

Good follow-up watering helps promote root growth. Drip irrigation systems and water reservoir devices can facilitate watering.

Mulch, but don't over mulch newly planted trees and shrubs. Two to three inches of mulch is best - less if a fine material, more if coarse. Use either organic mulches (shredded or chunk pine bark, pine straw, composts) or inorganic mulches (volcanic and river rocks).

Keep mulch from touching tree trunks and shrub stems. This prevents disease and rodent problems if using organic mulches, and bark abrasion if using inorganic mulches.

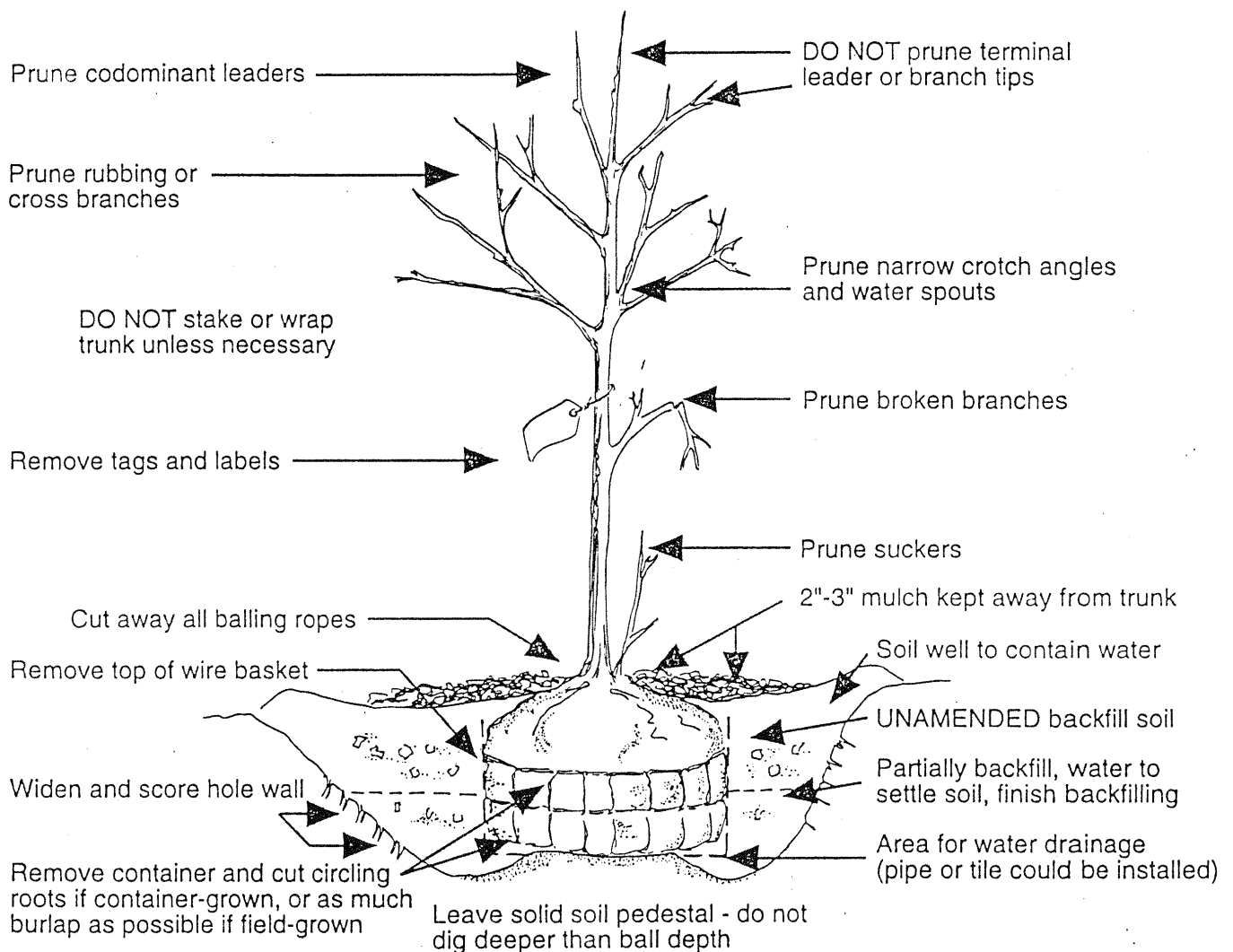
Don't use black plastic beneath mulch around trees and shrubs because it blocks air and water exchange. For

added weed control, use landscape fabrics that resist weed root penetration. Apply only one to two inches of mulch atop fabrics to prevent weeds from growing in the mulch.

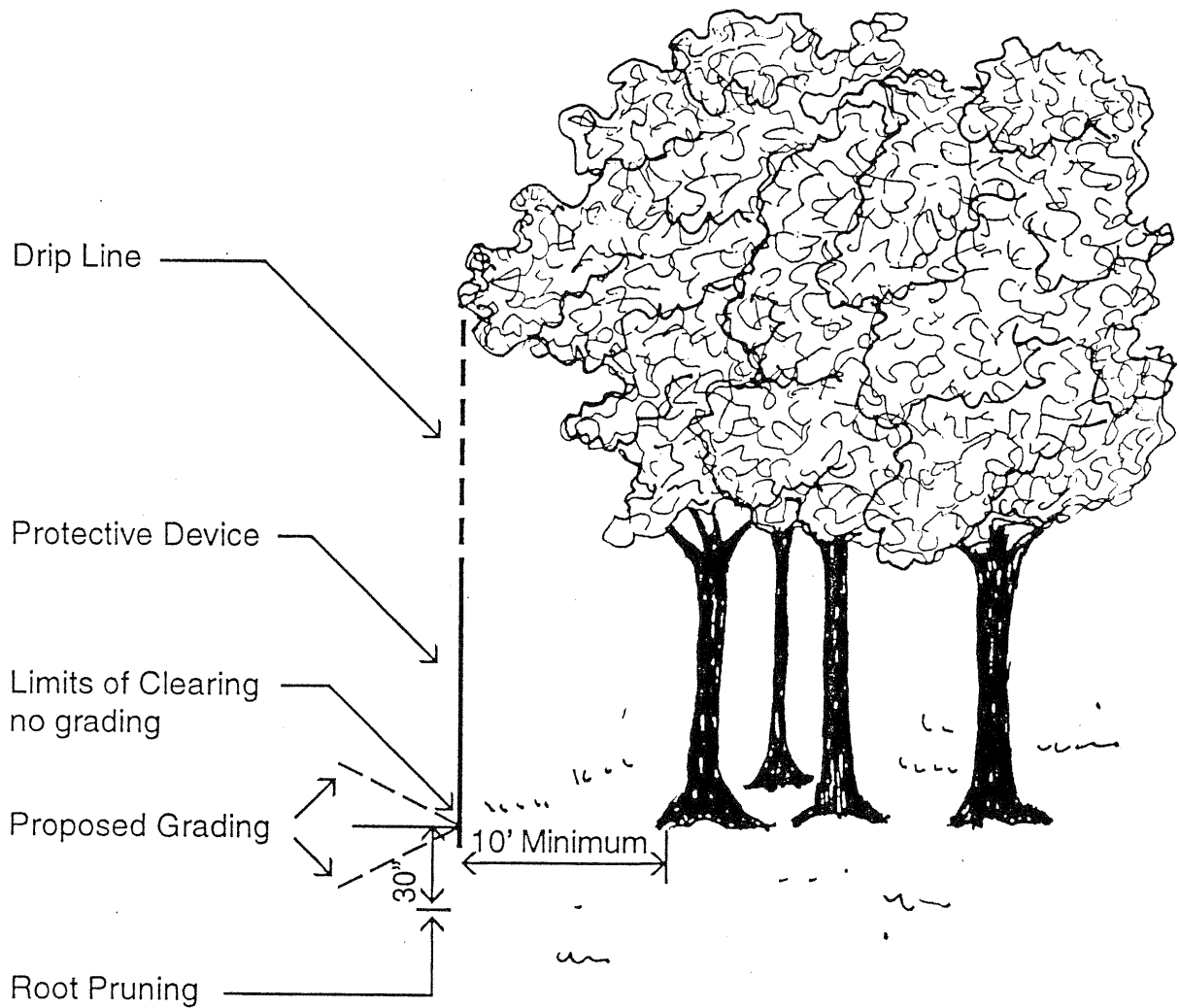
Only stake trees with large crowns, or those situated on windy sites or where people may push them over. Stake for a maximum of one year. Allow trees a slight amount of flex rather than holding them rigidly in place. Use guying or attaching material that won't damage the bark. To prevent trunk girdling, remove all guying material after one year.

Most trees should not have their trunks wrapped. Wrapping often increases insect, disease, and water damage to trunks. Thin-barked trees planted in spring or summer into hot or paved areas may benefit from wrapping if a white wrap is used. To avoid trunk girdling, do not attach wraps with wire, nylon rope, plastic ties, or electrical tape. If wraps must be used, remove within one year.

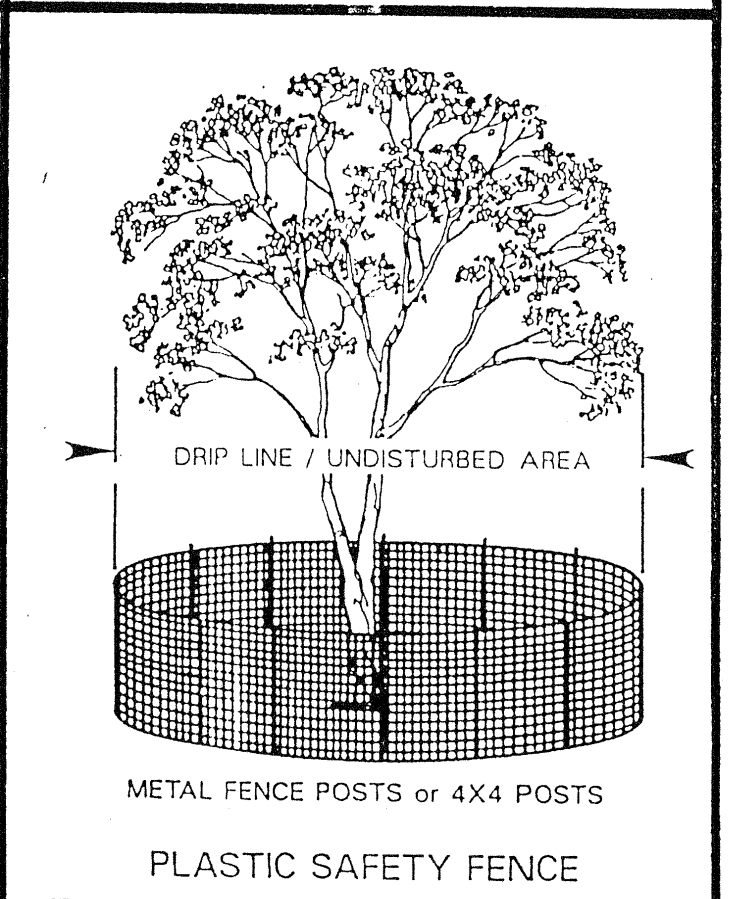
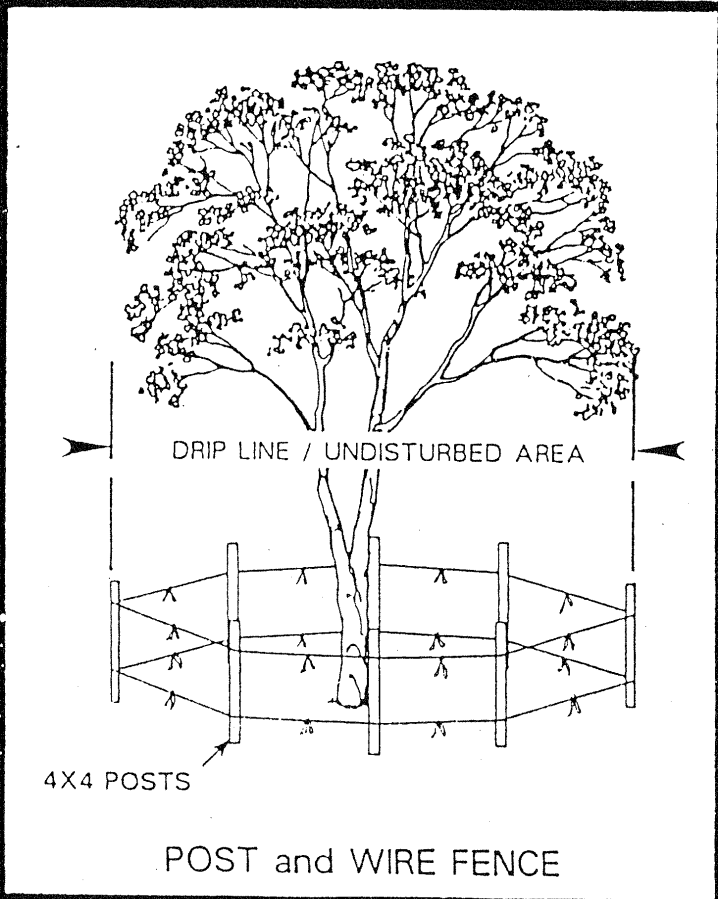
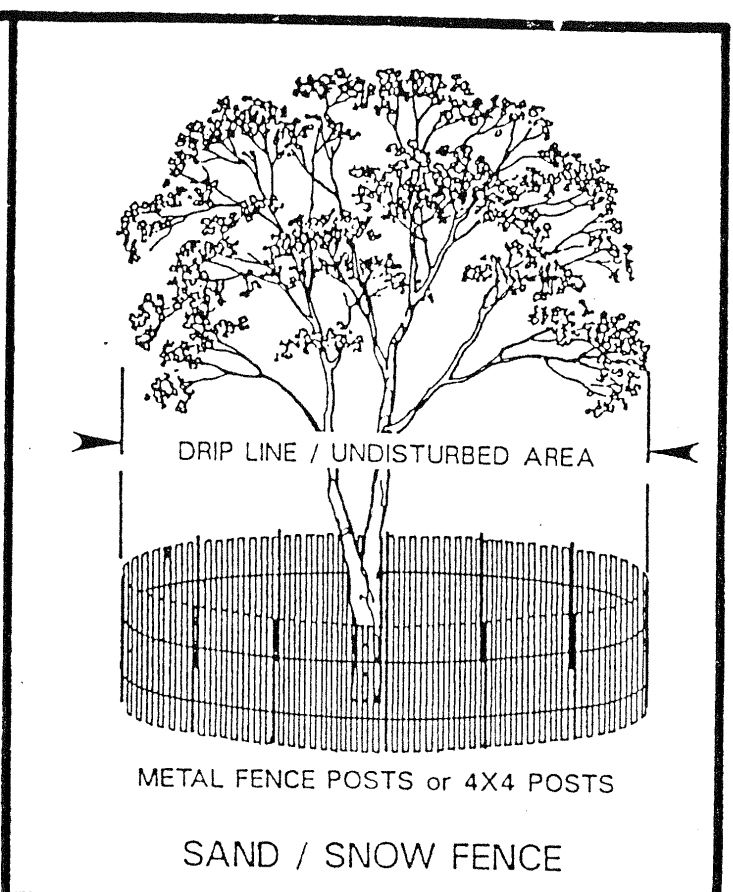
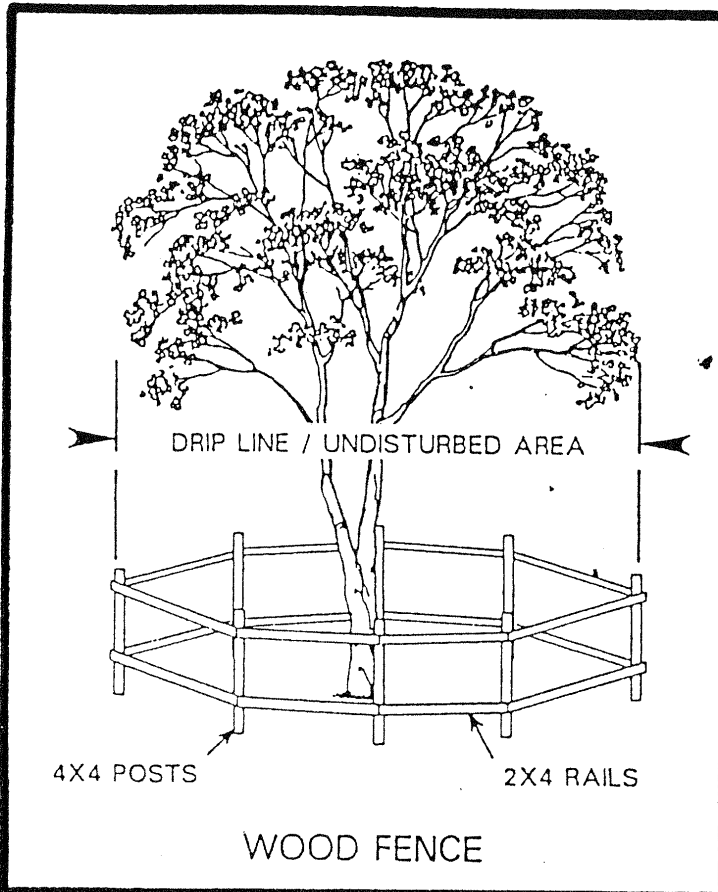
For protection against animal or equipment damage, install guards to protect the trunk. Be sure the guards are loose-fitting and permit air circulation.



# CONSTRUCTION RELATIVE TO THE LOCATION OF PROTECTED TREES

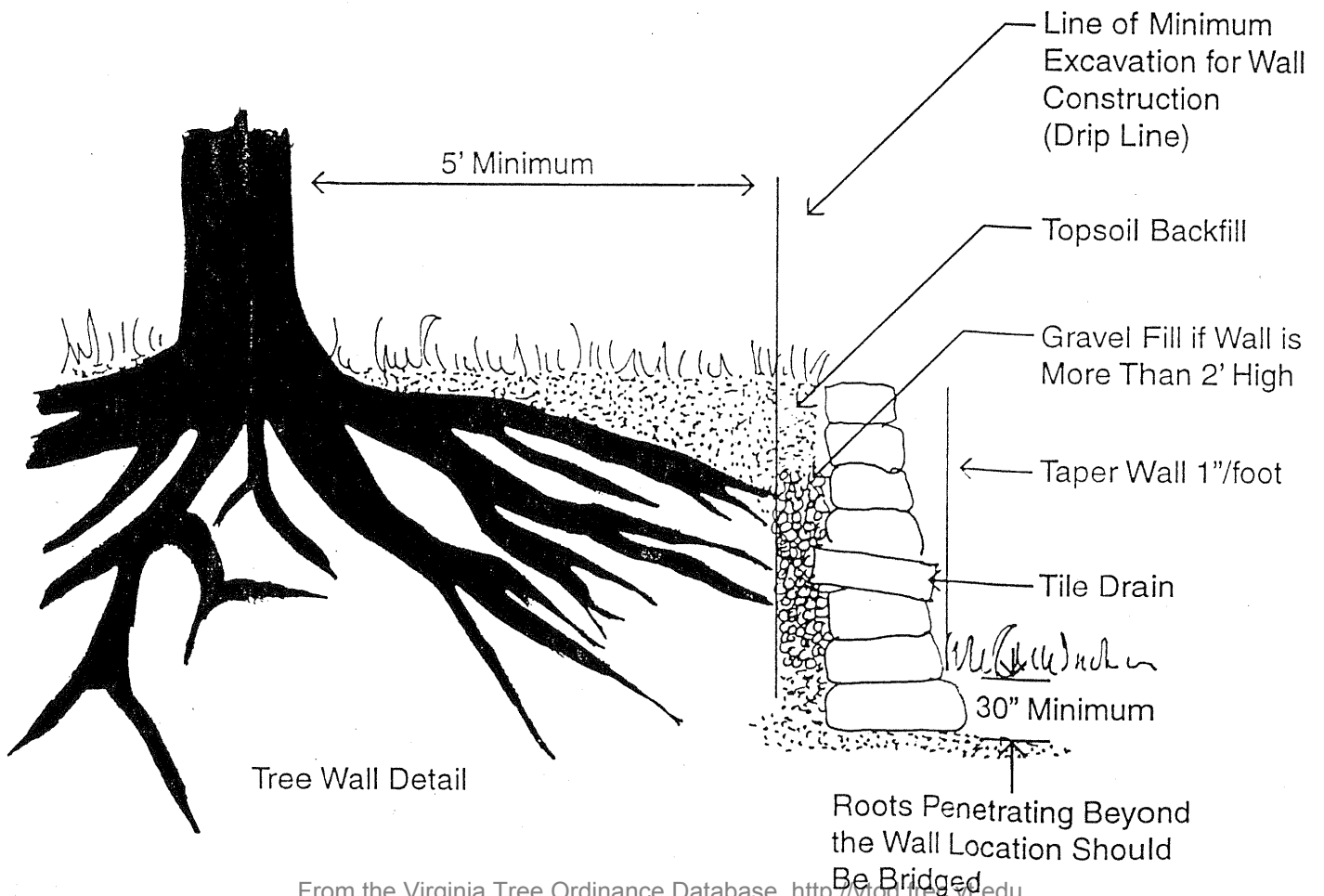
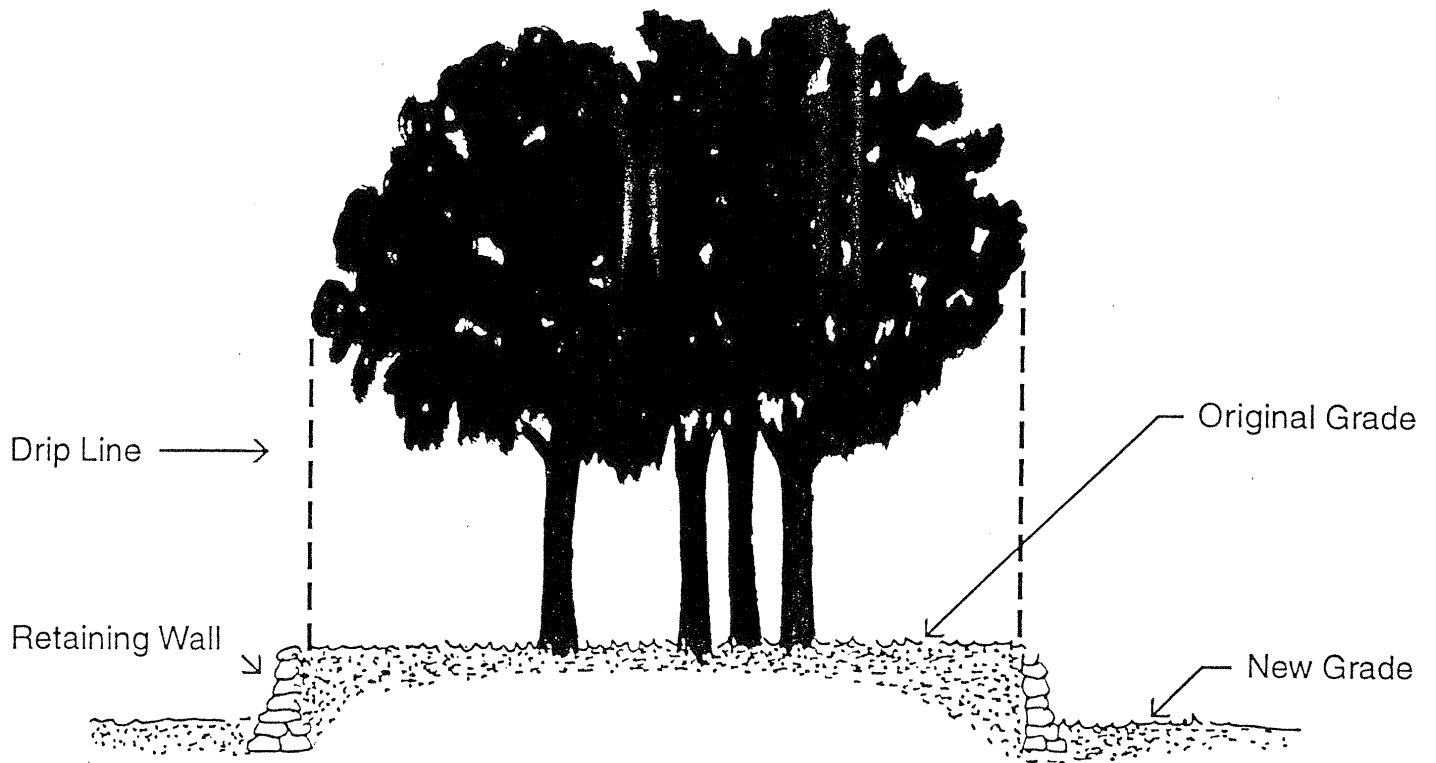


# TREE PROTECTION BARRIERS



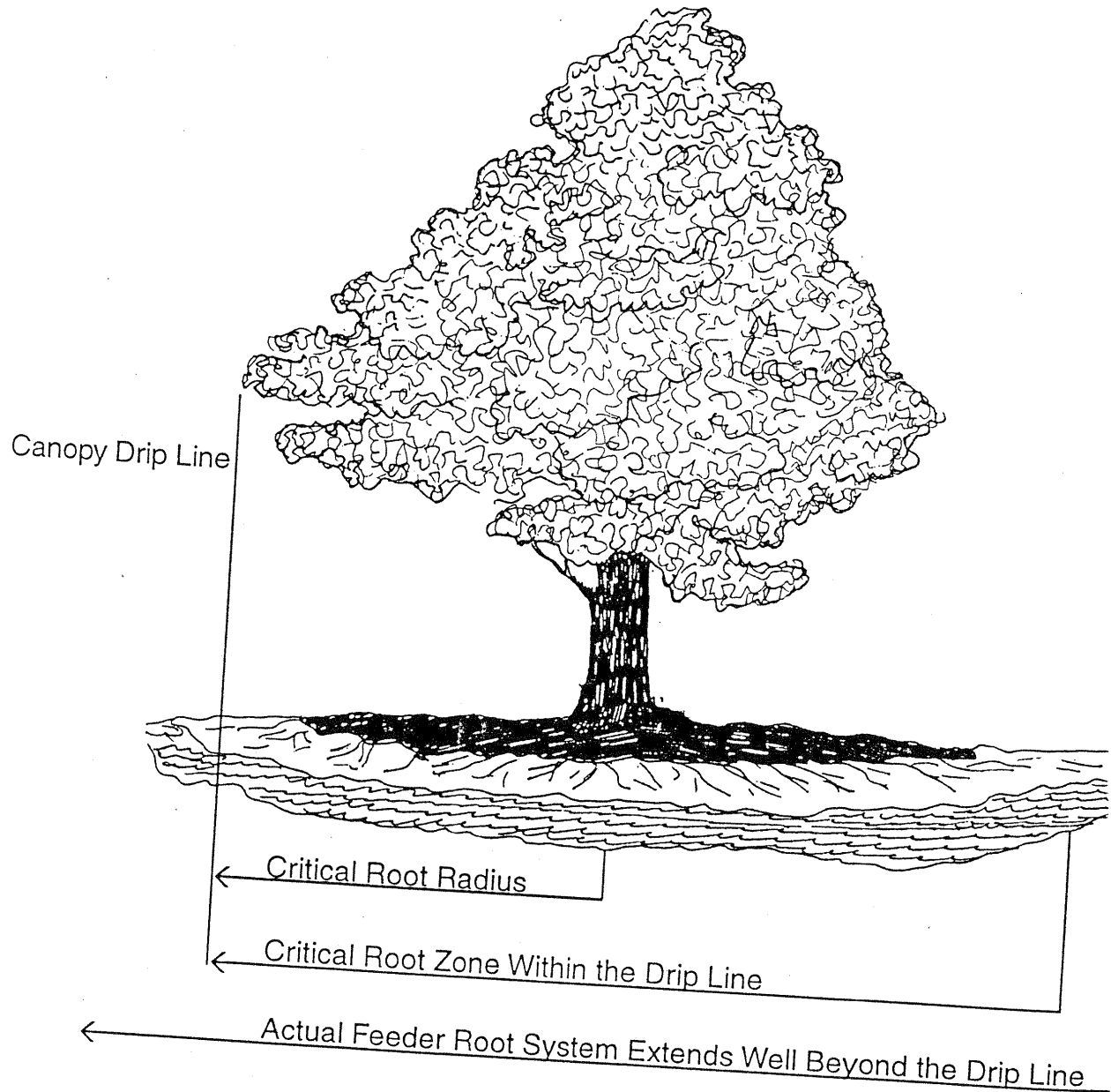


# SAMPLE RETENTION WALL

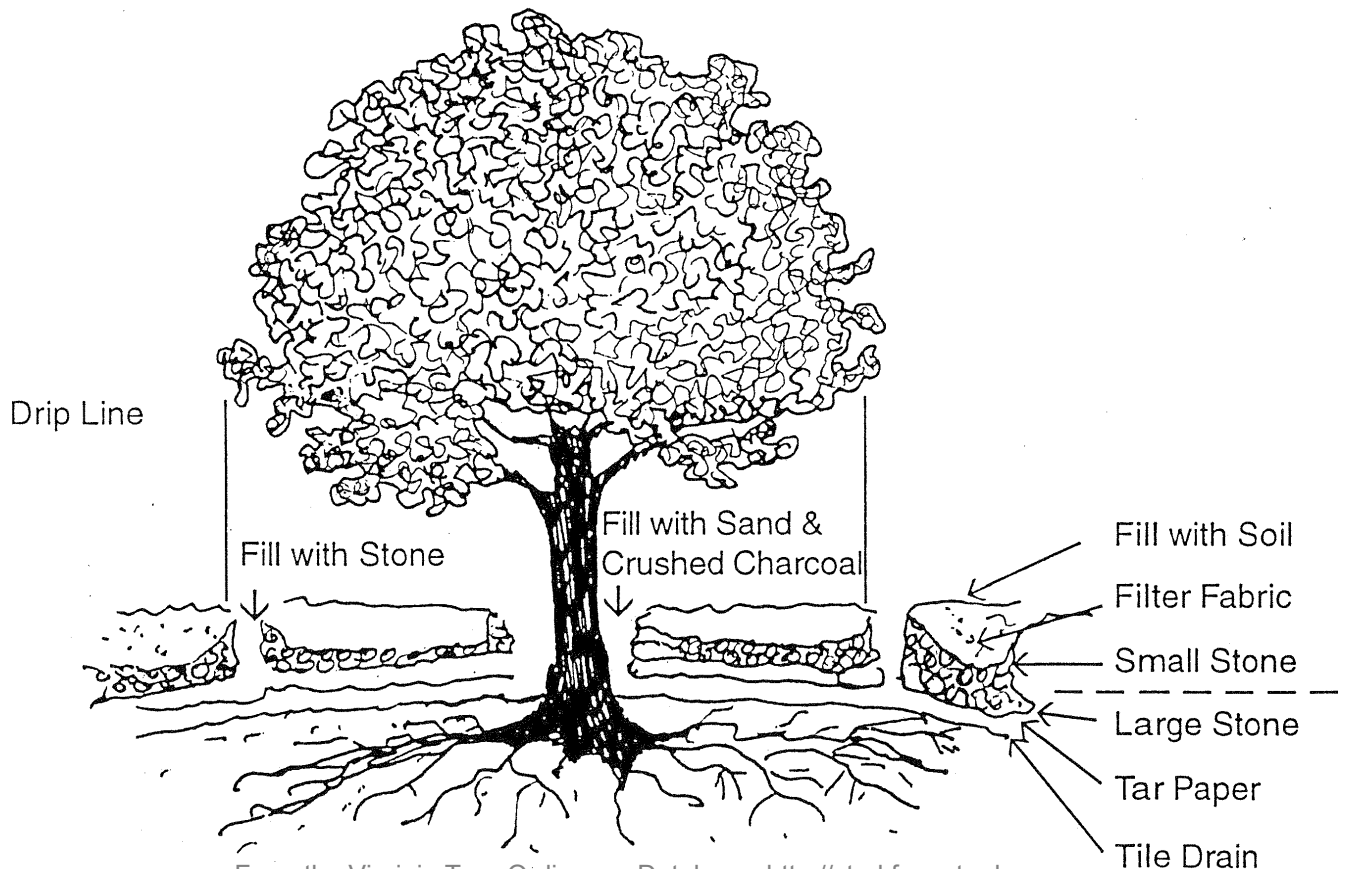
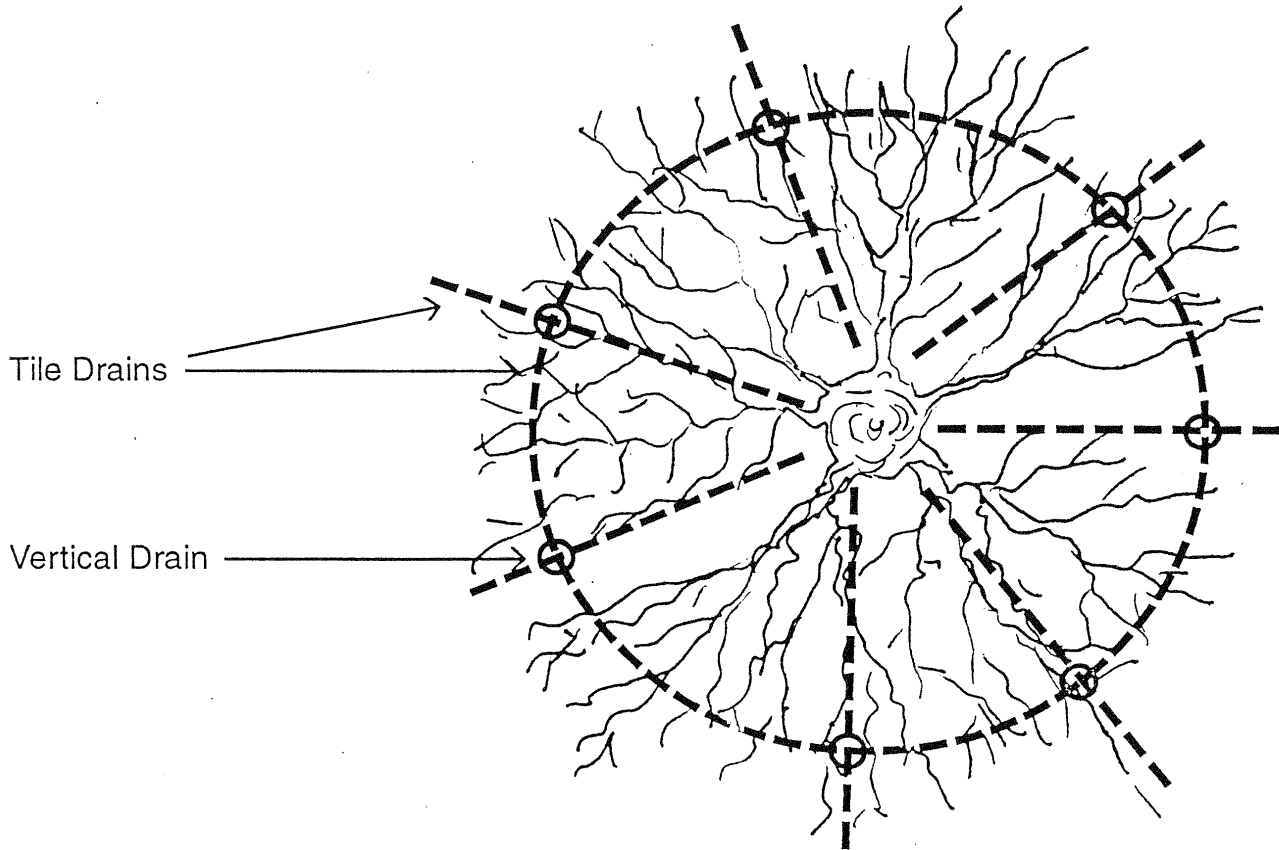


Tree Wall Detail

# TYPICAL CRITICAL ROOT ZONE



# TREE WELL DETAIL



From the Virginia Tree Ordinance Database, <http://vtod.frec.vt.edu>

**1. The single-family residential landscape plan must include one of the following tree canopy calculation formats:**

**NON CBPA TREE CANOPY LANDSCAPE PLAN (CZO 19-601.A.2)**

Lot Size (sf) \_\_\_\_\_  
Minus impervious (sf) \_\_\_\_\_  
Calculation Area (sf) \_\_\_\_\_  
Calculation Area X 20% = Canopy Required \_\_\_\_\_ sf  
Canopy Credit [400 sf per large canopy tree (LCT)]  
[200 sf per small canopy tree (SCT)]  
Canopy Provided (# of LCT and SCT) X sf Credit \_\_\_\_\_ sf

All trees must be a minimum of 6' tall at planting planted in accordance with CZO 19-600 with 2"-3" of mulch.

**CBPA TREE CANOPY LANDSCAPE PLAN (CZO 19-601.A.2)**

CBPA site (Ches City Code Ch.26.10) (sf) \_\_\_\_\_  
CBPA canopy requires 50% for RPA, 20% for RMA for gross site sf.  
RPA sf X 50% = Canopy required \_\_\_\_\_ sf  
RMA sf x 20% = Canopy required \_\_\_\_\_ sf  
RPA + RMA + Total canopy required \_\_\_\_\_ sf  
CBPA canopy provided (LCT or SCT X sf credit) \_\_\_\_\_ sf

All trees must be a minimum 6' tall at planting, planted in accordance with CZO 19-600 with 2"-3" of mulch.

**2. At least one large canopy tree must be located between the front of the house and the right-of-way.**