

## **CHAPTER 460 LANDSCAPING AND SCREENING**

### **Section 460.01 Purpose**

The purpose of these regulations is to enhance the environment and aesthetic character of the Village, to preserve and enhance the ecological balance of the community, to safeguard property values and public and private investments, and to maintain our heritage of a “green” village.

### **Section 460.02 Applicability**

These regulations apply to all uses subject to site plan review requirements of Chapter 610. In particular landscaping shall be applied to, but is not limited to:

- A. In front, and exterior side yards
- B. Parking Lots (Also see Chapter 440)
- C. Buffer planting areas
- D. Required screening areas
- E. Trash and garbage storage areas
- F. Storm water retention areas
- G. Sight triangle areas at street intersections
- H. Street planting areas
- I. Vehicular loading or storage areas
- J. Other areas as indicated in these regulations or deemed appropriate by the Planning Commission.

### **Section 460.03 Approval Process**

Landscaping and screening shall be reviewed as part of the site plan review process by the Shade Tree Commission and the Village Planning Commission at a minimum.

### **Section 460.04 Alternative Methods of Compliance**

Requests for alternative landscaping methods to meet the requirements of this ordinance for plantings may only be justified if one of the following applies:

- A. The site involves space limitations or unusually shaped parcels;
- B. Topography, soil, vegetation or other site conditions are such that full compliance is impossible or impractical;
- C. To preserve existing significant natural features;
- D. Due to a change of use of an existing site the required bufferyard is larger than can be provided; and
- E. Safety considerations are involved.

Alternative materials and methods may be utilized if the alternative will equal these regulations in terms of quality, effectiveness, durability, hardness, and performance.

**Section 460.05 Plant Substitutions**

Due to the seasonal planting problems and lack of plant availability, approved landscape plans may require minor revisions. Such revisions to planting plans may be accepted if there is no reduction in the quality of plant material or no significant change in size or location of plant materials, and if the new plants are of the same general category, (i.e., shade, ornamental, or evergreen trees) and have the same general design characteristics (mature height, crown spread) as the materials being replaced. Proposed materials must also be compatible with the area to ensure healthy tree growth. If these criteria are not fulfilled, changes to the approved plans must be resubmitted and reviewed by Planning Commission and Shade Tree Commission.

**Section 460.06 Landscaping Plan Preparation**

All landscaping plans should serve to enhance the physical environment and the projects aesthetic character.

All landscaping plans for projects subject to site plan review shall bear the seal of a certified landscape architect or other licensed professional authorized to prepare landscape plans. The Planning Commission may waive this requirement based on the size and scope of the project as long as the intent of these regulations are met.

**Section 460.07 Landscaping Plan Submittal Requirements**

The landscaping plan shall contain at a minimum, the following:

- A. Location, general type and quality of existing vegetation, including specimen trees;
- B. Existing vegetation to be saved;
- C. Methods and details for protecting existing vegetation during construction and the approved sediment control plan if available;
- D. Locations and labels for all proposed plants;
- E. Plant lists or schedules with the botanical and common name, quantity, and spacing and size of all proposed landscape material at the time of planting;
- F. Plant lists or schedules showing the required and proposed quantities;
- G. Location and description of other landscape improvements such as earth berms, walls, fences, screens, sculptures, fountains, street furniture, lights, and courts or paved areas; and
- H. Planting and installation details as necessary to ensure conformance with all required standards.
- I. Locations of current and future utility lines and easements.

**Section 460.08 Enforcement and Maintenance**

All plant material shall be installed as per the approved landscaping plan and guaranteed for a period of 1 year from initial installation. If any plant material dies within the first year the owner must replace it. To insure that plant material will be installed, a cash escrow for the value of the plant materials plus 10% shall be placed on deposit with the Village Clerk in conjunction with site plan review approval. Such deposit shall be returned upon completion of installation as per approved plans.

Within 30 days of installation, the individual who prepared the landscaping plan must submit written certification that healthy plants were properly installed and send such written confirmation to the Zoning Inspector who shall then inspect said installation for compliance.

All plant material installed shall be properly maintained. Failure to replace dead or diseased plants constitutes a zoning violation subject to the penalty provisions of this ordinance.

**Section 460.09 Plant Material Selection Considerations**

The following items shall be taken into consideration in determining the appropriate plant materials to be selected for plantings:

- A. Identify the purpose(s) for the plant material:
  - 1. Shade
  - 2. Ornamental
  - 3. Buffer
  - 4. Screening
  - 5. Windbreak
  
- B. Planting Site Characteristics  
(Plant material needs to be matched to the plant site characteristics.)
  - 1. Soil composition
  - 2. Hydrology
  - 3. Size of site or planting area
  - 4. Structures (existing and proposed)
  - 5. Utilities location
  
- C. Plant Material Characteristics
  - 1. Size at maturity
  - 2. Crown shape
  - 3. Maintenance requirements
  - 4. Disease resistance
  - 5. Desired soil
  - 6. Sun/Shade

D. Other Urban Forestry Considerations

Diversification of plant material and age of representation

**Section 460.10 Plant Lists**

The following plant lists shall serve as a guide for the installation of plant materials. This list is based upon plants that are most likely to thrive in this climate and perform their intended function.

**A. Recommended Shade Trees Suitable for Street Trees or Parking Lots as Well as Buffers and Screens**

<b>Botanic Name</b>	<b>Common Name</b>	<b>Comments</b>
Acer Saccharum and cvs.	Sugar Maple	
Acer rubrum and cvs.	Red Maple	
Carya sp.	Hickory	
Celtis occidentalis	Hackberry	
Crataegus sp. and cvs.	Hawthorns (thornless)	
Fraxinus sp. and cvs	Ash	
Ginkgo biloba	Ginkgo	(male only)
Gleditsia triacanthos, inermis and cvs.	Thornless Honeylocust	
Gymnocladus disica	Kentucky Coffee Tree	
Liquidamber styraciflua	Sweet Gum	
Liriodendron tulipifera	Tulip Tree	
Malus sp. and cvs.	Apple (crab)	
Ostrya Virginiana	American Hop Hornbeam	
Platanus occidentalis	Sycamore	
Platanus acerifolia	London Plane	
Pyrus sp. and cvs.	Pear	
Quercus bicolor	Swamp White Oak	
Quercus coccinea	Scarlet Oak	
Quercus imbricaria	Shingle Oak	
Quercus palustris	Pin Oak	
Quercus phellos	Willow Oak	
Quercus prinus	Chestnut Oak	
Quercus rubra	Red Oak	
Quercus velutina	Black Oak	
Sopohora japonica	Japanese Pagodatree	
Tilia americana	American Linden	
Tilia cordata and cvs.	Little Leaf Linden	
Tilia tomentosa	Silver Linden	

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Ulmus sp. and cvs.	Elm	(species with high resistance to Dutch Elm Disease)
Zelkova serrata	Japanese Selkova	

**B. Recommended Shade or Canopy Trees Suitable for Property Line Buffers and Nonvehicular Use Areas Only**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Acer saccharinum	Silver Maple	Large overextending limbs (open areas only)
Acer saccharum	Sugar Maple	
Betula lenta	Sweet Birch	
Betula nigra	River Birch	
Carya ovata	Shagbark Hickory	
Carya sp.	Hickory	
Fagus grandifolia	American Beech	
Fagus sylvatica	European Beech	
Fraxinus americana	White Ash	
Juglans nigra	Black Walnut	
Liriodendron tulipifera	Tuliptree	
Meta sequoia glypostroboides	Dawn Redwood	
Ostrya virginiana	Hop Hornbeam	
Phellodendron amurense	Amur Cork Tree	
Plantanus acerifolia	London Plane	
Prunus virginiana	Chokecherry	
Quercus alba	White Oak	
Quercus coccinea	Scarlet Oak	
Quercus palustris	Pin Oak	
Quercus vellutina	Black Oak	
Sassafras albindum	Sassafras	

**C. Recommended Ornamentals-Suitable for Property Line Buffers or Site Element Screens (10-30 feet at maturity)**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Amelanchier canadensis	Serviceberry	
Carpinus carolinia	Ironwood	
Cercis candensis	Red Bud	
Chioanthus virginicus	Fringetree	

<b>Botanic Name</b>	<b>Common Name</b>	<b>Comments</b>
<i>Cornus florida</i>	Flowering Dogwood	
<i>Cornus kousa</i>	Japanese Dogwood	
<i>Cornus mas</i>	Cornelian Cherry	
<i>Crataegus</i> spp. and cvs	Hawthorns	
<i>Halesia carolinia</i>	Silverbells	
<i>Hammamelis virginiana</i>	Witch Hazel	
<i>Koelreuteria paniculata</i>	Golden Raintree	
<i>Laburnum vossi</i>	Goldenchain	
<i>Magnolia soulangeana</i>	Saucer Magnolia	
<i>Magnolia virginiana</i>	Sweetbay Magnolia	
<i>Malus</i> sp.	Crab Apple Species	(Apple scab resistant varieties only)
<i>Oxydendrum arboreum</i>	Sourwood	
<i>Prunus sargentii</i>	Sargent Cherry	
<i>Prunus serrulata</i> cv Kwanzan	Kwanzan Cherry	
<i>Pyrus calleryana</i> cv Bradford	Bradford Pear	
<i>Pyrus calleryana</i> cv Redspire	Redspire Pear	
<i>Rhus glabra</i>	Smooth Sumac	
<i>Rhus typhina</i>	Staghorn Sumac	
<i>Sorbus aucuparia</i>	European Mountain Ash	
<i>Styrax japonica</i>	Japanese Snowbell	
<i>Syngia amurensis japonica</i>	Japanese Tree Lilac	

**D. Large Deciduous Shrubs Suitable for Use in Property Line Buffers or Site Element Screen (not clipped hedges) (mature height between 5 and 15 feet)**

<b>Botanic Name</b>	<b>Common Name</b>	<b>Comments</b>
<i>Aronia melanocarpa</i>	Black Chokeberry	
<i>Calycanthus floridus</i>	Sweet Shrub	
<i>Cephalanthus occidentalis</i>	Buttonbush	
<i>Clethra acuminata</i>	Summersweet	
<i>Cornus serica</i>	Red Osier Dogwood	
<i>Enkianthus campanulatus</i>	Redvien Enkianthus	
<i>Euonymous alatus</i>	Burning Bush	
<i>Forsythia</i> sp.	Forsythia	
<i>Fothergilla major</i>	Large Fothergilla	
<i>Ilex verticilsata</i>	Winterberry	Decidious
<i>Lindera benzoin</i>	Spicebush	
<i>Myica pennsylvania</i>	Bayberry	
<i>Philadelphus</i> spp.	Mock Orange	
<i>Pysocarpus opulifolius</i>	Common Ninebark	
<i>Sambucus canadensis</i>	Elderberry	

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Spirea nipponica	Snow Mound Spirea	
Vaccinium corymbosum	Blueberry	
Viburnum dentatum	Arrow Wood	
Viburnum lentago	Nannyberry	
Viburnum prunifolium	Black Haw	
Viburnum spp.	Other large Viburnums	
Viburnum trilobum	American Cranberry	

**E. Deciduous or Evergreen Shrubs Suitable for Clipped Hedges in Property Line Buffers or Site Element Screens (6-20 feet at maturity)**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Acanthopanax pentaphyllum	Five Leaf Aralia	
Aronia arbutifolia	Chokeberry	
Berberis sp.	Barberry Sp.	
Cornus mas	Cornelian Cherry	
Cotoneaster salicifolia	Willowleaf Cotoneaster	
Euonymus alatus	Winged Euonymous	
Euonymus fortuneii vegetus sarcoxie	Big Leaf Wintercreeper	
Ilex crenata compacta	Compact Japanese Holly	
Ilex glabra	Inkberry	
Ilex crenata hetzi	Hetz Holly	
Juniperus chinensis pfitzeriana compacta	Compact Pfitzer Juniper	
Philadelphus lemionei	Mock Orange	
Taxus baccata	English Yew	
Taxus brownii	Brown's Yew	
Taxus canadensis	Canada Yew	
Taxus densiformis	Dense Yew	
Taxus media Hatfieldi	Hatfield Yew	
Viburnum dentatum	Arrow Wood	
Viburnum lentago	Nannyberry	
Viburnum opulus	European Cranberry Bush	
Viburnum prunifolium	Black Haw	
Thuja sp.	Arborvitae	

**F. Evergreen Shrubs Suitable for Site Element Screens**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Azalea-evergreen species	Azalea	must reach 3 foot height
Chamaecyparis obtusa	Chamaecyparis	
Chamaecyparis pisifera	Chamaecyparis	

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Ilex crenata "hetzi"	Japanese Holly	
Ilex glabra	Inkberry	
Ilex mesevvea	Blue Holly Series	
Juniperus virginiana	Eastern Red Ceder	
Kalmia latifolia and cvs	Mountain Laurel	
Leucothoe fontanessiana	Leucothoe	
Pieris floribunda	Mountain Andromeda	
Peiris japonica	Japanese Andromeda	
Rhododendron sp.	Various Large Rhododendrums	
Taxus sp.	Yew	
Thuja Sp.	Arbovitae	
Viburnum rhyzidophillum	Leatherleaf Viburnum	

**G. Evergreen Trees Suitable for Property Line Buffers or Site Element Screens**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
Abies concolor	White Fir	
Ilex opaca	American Holly	
Picea abies	Norway Spruce	
Picea omorika	Siberian Spruce	
Picea pungens	Colorado Spruce	
Pinus strobus	White Pine	
Pinus thunbergii	Japanese Black Pine	
Pseudotsuga menziesii	Douglas Fir	
Tsuga canadensis	Canadian Hemlock	
Tsuga caroliniana	Carolina Hemlock	

**H. Canopy Trees Suitable for Stormwater Detention Basins**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
<b>Note: * =Usually well drained, but subject to occasional flooding</b>		
<b>+ = Permanently wet areas</b>		
Acer rubrum	Red Maple	+
Acer saccarium	Silver Maple	*
Betula nigra	River Birch	*
Carya Ovata	Shagbark Hickory	*
Fraxinus americana	White Ash	*
Liquidamber styraciflua	Sweet Gum	+
Nyssa sylvatica	Black Gum	*
Quercus phellos	Willow Oak	*



<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
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**Note:** \* =Usually well drained, but subject to occasional flooding  
+ = Permanently wet areas

Quercus bicolor	Swamp White Oak	+
Quercus pallustris	Pin Oak	*
Taxodium distichum	Bald Cypress	+

**I. Deciduous/Evergreen Ornamental Trees Suitable for Stormwater Detention Basins**

**Note:** \* =Usually well drained, but subject to occasional flooding  
+ = Permanently wet areas

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
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Amelanchiar canadensis	Shadbush	*
Carpinus carolinia	Ironwood	*
Chloanthus virginiana	Fringetree	*
Magnolia virginiana	Sweetbay	*
Salix caprea	Willow	+
Salix discolor	Willow	+
Thuja occidentalis cv nigra	Arborvitae	*

**J. Deciduous or Evergreen Shrubs Suitable for Stormwater Detention Basins**

<u>Botanic Name</u>	<u>Common Name</u>	<u>Comments</u>
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Aronia arbutifolia	Red Chokeberry	+
Caly canthus florida	Sweetshrub	*
Cephalanthus occidentalis	Button Bush	+
Clethra alnifolia	Summersweet	+
Cornus amonum	Silky Dogwood	+
Cornus serica	Red-Stem Dogwood	+
Hammamelis virginiana	Witch Hazel	*
Ilex glabra	Inkberry	+
Ilex verticilata	Winterberry	+
Lindera benzoin	Spice Bush	*
Myrica cerifera	Southern Bayberry	*
Myrica pennsylvanica	Northern Bayberry	+
Rhododendron nudiflorum	Pinxterbloom Azalea	+
Rhododendron viscosim	Swamp Azalea	+
Sambucus canadensis	Elderberry	*
Viburnum cassanoides	Witherod	*
Viburnum dentatum	Arrow Wood	*

<b>Botanic Name</b>	<b>Common Name</b>	<b>Comments</b>
Viburnum lentago	Nannyberry	*
Viburnum tribolum	American Cranberry	*

**K. Herbaceous Perennials Suitable for Detention Basins**

**Note:** \* = Usually well drained, but subject to occasional flooding  
 + = Permanently wet areas

<b>Botanic Name</b>	<b>Common Name</b>	<b>Comments</b>
Aster novae angliae	New England Aster	*
Chrysanthemum lencanthemum	Ox-Eye Daisy	*
Echinacea purpurea	Purple Cornflower	*
Eupatorium dubium	Jo Pye Weed	*+
Eupatorium fistulosum	Hollow Joe Pye Weed	*+
Hemerocallis sp.	Day Lily	*
Hesperis matronalis	Dames Rocket	*
Hibiscus moshentos	Rose Mallow	+
Iris pseudocaris	Yellow Iris	*+
Iris vericolor	Blue Flag	+
Lobelia cardinalis	Cardinal Flower	*+
Lobelia siphilitica	Blue Lobelia	*+
Monarda didyma	Bee Balm	*
Panicum virgatum	Switchgrass	*+
Rudbeckia sp.	Black Eyed Susan	*
Scirpus acustus	Hard Stem Bullrush	+
Spartina alternifolia	Cordgrass	+
Typha latifolia	Common Cattail	+
Veronia noveboracensis	New York Iron Weed	*+

**Section 460.11 Landscape Standards and Specifications**

A minimum area of 15% of each new or redeveloped site, excluding single family dwellings, shall be landscaped. Landscaping and screening within parking areas may be counted toward this requirement. The Planning Commission may reduce or waive this requirement when it is demonstrated that the spirit and intent of these requirements are accomplished through other means or the nature of the change does not require additional landscaping.

A. In addition to the requirements in Chapter 440, the following standards shall guide the number and placement of plantings for landscaping within the Village:

1. *Shade Trees for Street Planting*
  - a. Shade trees shall be planted by the developer along each side of all streets,

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public or private for residential subdivisions and for all development in non-residential districts. In locations where healthy and mature shade trees exist, the requirements for new trees may be waived or modified.

- b. In commercial areas, street trees shall be required in addition to any proposed on site landscaping to provide the shading, visual enhancement and continuity for the landscape.
- c. Any existing street tree that constitutes a specimen or mature tree may be substituted for the required street tree.
- d. Trees shall be selected that will shade large paved areas. Trees should be a minimum of 20' but generally not greater than 40' to accomplish such shading.
- e. Such trees shall normally be spaced at intervals of no greater than 40 feet along both sides of each street, including arterial roads, but not including rear access lanes or alleys.
- f. Street tree placement shall include consideration for vehicle line of sight, entrance and exit curb cuts, street light and traffic control devices, and other site specific conditions as part of the design review process.
- g. Species shall be selected following the plant material selection guidelines of Section 460.09 and according to the following criteria:
  1. Cast moderate shade to dense shade in the summer;
  2. Survive at least 30 years.
  3. Mature height of:
    - a. Large trees-50 feet or greater;
    - b. Medium size trees-30'-50';
    - c. Small trees-up to 30'.
  4. Tolerant of pollution and direct or reflected heat.
  5. Require little maintenance by being structurally sound. Insect and disease resistant varieties shall be selected when available.
  6. Be able to survive without irrigation after establishment; and
  7. Be of native origin, provided they meet the above criteria.
- h. In storefront areas, the street treescape shall consist of deciduous species that branch above 8 feet to facilitate viewing of storefronts and signage.
- i. Street trees and parking lot trees shall have a minimum of:
  1. Small Trees-4' diameter planting area;
  2. Medium Trees-6' diameter planting area;
  3. Large Trees-8' diameter planting area.
- j. The street tree list designates recommended tree species.
- k. For Residential Districts:
  1. Street trees shall normally be planted at 40-foot intervals for medium to large trees and 20' intervals for small trees.
  2. Street trees shall be planted at the following distances from:
    - a. Public sidewalk and curbs: large trees-4 ft; medium trees-3 feet, and small trees 2 feet.
    - b. Sewer or water lines: At least 10 feet away from sewer or water lines, and at least 5 feet from a driveway.
    - c. Overhead utility lines: 10 feet and may not be planted underneath unless they are small trees.

d. Street corners and fire hydrants: 35 feet from street corners measured from the point of nearest intersecting curbs or curblines.

No tree shall be planted closer than 10 feet from any fire hydrant.

3. All street trees in residential districts shall be installed with the same planting area as in 2. h. above.

## 2. *Perimeter/Buffer Landscaping and Screening*

- a. Screening shall be used to protect adjoining properties and roadways from noise, glare, and uses that are visually incompatible with neighboring uses. Screening is required:
  1. On sites which involve loading or unloading, (including storage of vehicles and boats), trash, or disposal areas.
  2. Where exterior storage areas are visible from roadways, sidewalks or nearby residential properties.
  3. When noise not typically occurring in residential areas is expected to project onto nearby properties.
  4. To screen parking areas from motorist, pedestrian, and adjoining residential properties.
  5. Where commercial district abuts a residential district or where industrial district abuts a residential district.
- b. Landscaped screens shall be designed to complement other landscaping occurring naturally on the site, planted previously, or approved as part of a site plan review. Whenever possible, existing vegetation and land form shall be used to create screens.
- c. The screen shall be capable of providing screening all through the year.
- d. When noise is a likely to be a factor, the screen shall be of sufficient construction to be an effective noise buffer.
- e. Screening shall consist of trees and plants and may include masonry or wood fencing used with or without berms. Screening shall consist of a functional and well designed combination of the following:
  1. Vegetative ground cover.
  2. Coniferous and deciduous shrubs.
    - a. Specimens of which will reach and maintain a height of at least 5 feet at full growth.
    - b. Plants shall measure a minimum of 3 feet in height at the time of planting and are expected to attain a height of 5 feet in 3 years.
    - c. Evergreen shrubs shall not normally be planted any closer than 6 feet on center.
    - d. Shrubs shall not normally be planted closer than 6 feet to planted trees, nor within the drip line of existing protected trees.
    - e. For buffer areas, evergreen shrubs shall be provided at the following

rates:

<b>Required Buffer Width</b>	<b>One Shrub Per</b>
20 ft. or less	50 sq. ft. of buffer
21 ft. to 30 ft.	75 sq. ft of buffer
31 ft. to 50 ft.	125 sq. ft. of buffer
>50 ft.	200 square ft. of buffer

Variations in quantities and spacing of buffer shrubs may be approved when larger plants are provided.

3. Coniferous and Deciduous Trees

- a. Species and sizes of which will be chosen to best accomplish an adequate screen, ie., evergreens for visual screening, deciduous trees for seasonal screening.
- b. Trees shall be distributed along the entire length of any required buffer area.
- c. For buffer areas, trees shall be planted at the following rate:

<b>Required buffer width</b>	<b>One Tree Per</b>
20 ft. or less	200 square ft. of buffer
21 ft. to 30 ft.	300 square ft of buffer
31 ft. to 50 ft.	350 square ft. of buffer
>50 ft.	400 square ft. of buffer

- f. Natural slope and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to screen the area from adjoining properties and roadways.
- B. The landscape contractor shall furnish and install and/or dig, ball, burlap, and transplant materials listed on the plant schedule. Bare root is not typically permitted for any tree.
- C. Plant materials shall conform to the requirements described in the latest edition of American Standard for Nursery Stock, which is published by the American Association of Nurserymen. Plants shall be nursery grown unless otherwise approved by the Planning Commission and Shade Tree Commission.
- D. Plants shall conform to the following minimum measurements:

1. Caliper measurements shall be taken six inches above grade for trees under four inches in diameter and 12 inches above grade for trees four inches in diameter and larger.
  2. Minimum branching height for all medium and large shade trees shall be six feet.
  3. Minimum size for medium and large shade trees shall be 2.5 to three inches in diameter, 12-14 feet in height.
  4. Minimum size for small shade trees shall be 1.5 inches to 1.75 inches in diameter, four to seven feet in height.
  5. Minimum size for evergreen trees shall be six to eight feet in height.
  6. Minimum size for shrubs shall be 36 inches in height. If used for screening, they shall be of a variety that can be expected to reach 4-5 feet in height within 3 years of planting.
- E. A professional horticulturalist/nurseryman shall be consulted to determine the proper time to move and install plant material so that stress to the plant is minimized. Planting of deciduous material may be continued during months provided there is no frost in the ground and frost free topsoil planting mixtures are used.
- F. A landscape contractor shall excavate all plant pits, vine pits, hedge trenches, and shrub beds as follows:
1. All pits shall be generally circular in outline with vertical sides. The tree pit shall be deep enough to allow one-eighth of the ball to be above the existing grade. Plants shall rest on undisturbed existing soil or well compacted backfill. The tree pit must be a minimum of nine inches larger on every side than the ball of the tree.
  2. If areas are designated as shrub beds or hedge trenches, they shall be cultivated to at least 18 inches in depth. Areas designated for ground covers and vines shall be cultivated to at least 12 inches in depth.
- G. Each tree, shrub, or vine shall be pruned in an appropriate manner, in accordance with accepted, standard practice. Plant Maintenance Standards to be followed are ANSI A-300-1995.
- H. All trenches and shrub beds shall be edged and cultivated to the lines shown on the drawing. The areas around isolated plants shall be edged and cultivated to the full diameter of the pit. Sod that has been removed and stacked shall be used to trim the edges of all excavated areas to the neat lines of the plant pit saucers, the edges of shrub areas, hedge trenches and vine pockets.
- I. After cultivation, all plant materials shall be mulched with a two to three inch layer of bark, peat moss, or another approved material over the entire area of the bed or saucer. Mulch material shall not contact base or stem of plant material.

**Section 460.12 Tree Preservation and Care During Construction**

- A. Every effort shall be made during construction to preserve existing healthy trees and shrubs on the site.
- B. Preservation of trees and vegetation of special significance due to size, age, habitat, or historical significance is highly encouraged.
- C. A mature tree, tree mass or woodland shall be considered to remain only if it meets all of the following criteria:
  - 1. The outermost branches of the tree(s) are at least five feet from any proposed buildings, structures, paving, parking or utilities (overhead or underground)
  - 2. The outermost branches of the tree (s) are at least five feet from any proposed changes in grade or drainage such as excavations, mounding or impoundments.
  - 3. The tree(s) are clear of any proposed sight triangles, and do not by their location or apparent health, pose any undue threat to the health, safety and welfare of the community.
- D. Mature trees, tree masses, or woodlands that do not fit the above criteria shall be designated "To Be Removed" on landscaping plans. These trees will be removed in the field during construction process.
- E. It shall be incumbent on the applicant to prove that vegetation removal is minimized by showing that no alternative layouts are possible, and that no alternative clearing or grading plan would reduce the loss of mature trees, tree masses and woodlands.
- F. All tree save areas shall be unmistakably delineated in the field so that it is obvious to all equipment operators and other construction personnel. A temporary physical barrier such as a snow fence shall be erected a minimum of one foot outside the dripline on all sides of individual trees, trees masses or woodlands prior to major clearing or construction. The barrier shall be placed to prevent the disturbance to or compaction of soil inside the barrier, and shall remain until construction is complete. The barrier shall be shown on the landscape plan.
- G. Transplanting Existing Plant Material: Specimen trees or individual trees moved from woodlands or tree masses designated "To Be Removed" may be transplanted with a tree spade from one area of the site to another conforming to requirements of this chapter.
- H. The following practices are considered harmful in a tree save area: grading or trenching, placing backfill near trees, driving or parking equipment in save areas, and dumping of trash, storage of construction materials and supplies, oil or paint in close proximity to tagged trees.

- I. Trees to be saved should be selected prior to siting the building and paving.  
Factors to consider include: existing and proposed grading, age, condition and type of tree, location of site improvements and utility connections.
  
- J. Grading should be done in a manner to avoid destruction and damage to trees and tree stands. Grading must take existing drainage patterns into consideration and the disruption of those patterns minimized.