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**ARTICLE III. 6.3 LANDSCAPING, SCREENING AND BUFFERING  
STANDARDS**

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**6.3.1 Purpose**

The standards established in this Section are intended to:

1. Encourage the preservation of existing trees and vegetation;
2. Maintain the visual character of the community;
3. Aid in stabilizing the ecological balance by contributing to the process of air purification, oxygen regeneration, groundwater recharge, storm water retardation, erosion and flood control, protecting wildlife shelters and food supply, while at the same time aiding in noise, glare, dust and heat abatement;
4. Influence wind patterns and their effects upon proposed uses;
5. Control noise and provide acoustical modification into and from a site;
6. Screen objectionable uses within and between uses;
7. Contain odors and minimize their passage into and from the site;
8. Safeguard and enhance property values;
9. Preserve, protect and/or restore the unique identity and environment of the City of Goldsboro; and
10. Protect the public health, safety and general welfare.

**6.3.2 Applicability**

The provisions of this Section shall apply to any application for any building permit, certificate of occupancy, zoning, special/conditional use permits, zoning compliance certificates, vested rights certificates and subdivision and site plan approvals. The landscaping, screening and buffering requirements of this Section shall apply when an existing structure or use is expanded, enlarged or changed. The screening requirements of Section 6.3.13 shall apply to all dumpsters and outdoor storage areas that are required to be retrofitted.

1. If the expansion is less than fifty percent of the original building or parking area, collectively or separately, only the expansion need comply with the requirements of this Section. Any expansion, regardless of percentage of expansion, shall be required to install the required street trees and vehicular surface area buffer.
2. If the expansion is greater than or equal to fifty percent of the original building or parking area, collectively or separately, the entire lot shall comply with the requirements of Section.
3. Repairs and renovations, not resulting in an expansion of the parking or building area, but collectively costing more than fifty percent of the tax value as recorded in the Wayne County Tax Record at the date of application, shall be required to fully comply with the landscaping requirements of this Ordinance.
4. If there is a change in use of a principle building resulting in an intensification of use, the entire lot shall fully comply with all the landscaping requirements of this Ordinance.
5. Sites that have ceased operation for more than one hundred eighty (180) days shall install the required street yard and vehicular surface area buffer in addition to any other landscaping requirements prior to continuing operation.
6. Street yard and vehicular surface area buffer installation shall be required upon any change of

land use associated with a commercial, office, industrial or multi-family project.

7. Any landscaping retrofit as required by this Code shall require landscaping to be installed to the greatest extent possible including the removal of asphalt or parking areas to install the required landscaping and, if necessary, opaque buffers. Privacy fencing may substitute for an opaque buffer if inadequate room to plant a vegetative buffer is available. The City Council may grant a modification of the planting of landscaping if it creates a site design hardship that would negatively impact the property.

The following land uses, occupancies and buildings are exempt from the requirements of this Section:

1. Detached single family dwelling on its own lot;
2. Two-family dwelling;
3. Multi-family residences with no more than 4 dwelling units per lot provided parking is set back at least 8 ft. from all property lines.
4. Bona fide farm uses;
5. Existing developed lots in the Central Business District that do not provide off-street parking; and
6. Temporary uses.

### **6.3.3 PLAN AND APPLICATION REQUIREMENTS**

A landscaping plan shall be required that meets the requirements of this Ordinance and shall be submitted simultaneously with the other required subdivision or site plans or preliminary plats.

### **6.3.4 TREE PRESERVATION REQUIREMENTS**

Tree preservation— Existing vegetation shall be retained and incorporated into the landscape/development plan to the greatest extent possible. Credits for tree preservation toward landscaping requirements are offered when a tree preservation plan or site plan illustrating trees to be saved is submitted prior to grading the site.

Properties that are cleared within two years prior to site plan approval by the City will be required to replant removed landscaping with double the required number of trees and shrubs. Replacement trees shall be a minimum of four (4) inches in caliper at the time of planting.

Tree preservation landscape plan requirements shall include the following:

1. A site specific illustration of the trees to be retained and removed, indicating the species, size, location, and height;
2. A statement on the landscape plan that there will be no disturbance in the Critical Root Zone (CRZ); a disturbance is considered trenching, placing backfill, driving or parking equipment in the CRZ and/or the dumping of trash, oil, paint or other materials detrimental to plant health; and
3. An illustration of the protected CRZ(s) and proposed method for protection on the landscape plan; acceptable methods of protection include protective fencing or other equally effective measures used during all construction activity.

CRZ protection requirements:

1. Protective fencing shall be made of highly visible mesh material, have a minimum height of four feet and be supported with posts spaced a maximum distance of ten feet. Signs identifying the CRZ protection area shall be placed on the protective fence.
2. All protective fencing shall be installed prior to any site clearing or grubbing has begun. In cases where fencing would create an unusual burden, the clearing limits (CRZ) may be

- temporarily flagged with highly visible continuous marking tape. Flagging shall be replaced with protective fencing immediately after the area has been cleared.
3. Protective fencing or flagging shall be located and erected along the outer perimeter of the CRZ. No land disturbing activity, storage of materials, equipment or debris shall take place within the protected area.
  4. Limited grading within the CRZ of preserved trees is permitted. The grading activity may disturb a maximum of twenty percent of the CRZ area.
  5. No more than twenty percent of the CRZ of a preserved tree may be paved with an impervious material.
  6. No nails, ropes, cables, signs or fencing shall be attached to any part of any tree that is listed for preservation.
  7. Any landscaping retrofit as required by this Code shall require landscaping to be installed to the greatest extent possible including the removal of asphalt or parking areas, if necessary, to install the required landscaping and opaque buffers. Privacy fencing may substitute for an opaque buffer if there is inadequate room to plant a vegetative buffer. The City Council may grant modifications of planting if landscaping creates a site design hardship that would negatively impact the property.

Credits for preserved trees and landscaping – If all of the above requirements have been met, the preserved tree is not damaged during construction, it meets the minimum size requirements of this Section and fulfills the design standards for the landscaped area in which it is located (Buffer yard, street yard, parking yard or residential yard), the tree shall be credited toward fulfilling the landscaping requirements of this Section. The Planning Department may decide what credits to grant for existing trees and landscaping depending on species, height, caliper and health.

### **6.3.5 GENERAL LANDSCAPING STANDARDS**

1. Minimum plant and tree sizes – New plant material shall have the minimum required plant size at installation and be of a species type that will be expected to reach the minimum mature height and size depending on the type of required planting area. (See Table 6-7, Minimum Plant Size at Installation)
2. View obstruction – No landscaping, tree or otherwise, shall be planted in the sight triangles, as illustrated in Appendix B, without the prior approval of the City Engineering Division. Grass, ground covers and low growing shrubs may be permitted.
3. Drainage ditches – When a drainage ditch separates property lines, or is otherwise contained within a lot or tract, all vegetation required by this Section shall still be provided. However, in no case shall the required vegetation be located within five feet of the outer edge of the drainage ditch.
4. Stormwater detention structures – All structures having a slope of greater than two horizontal feet for every vertical foot or steeper shall not have any of the required vegetation within five feet of the outer edge of the structure. Stormwater detention structures, excluding swales that do not prevent the installation of landscaping, shall be prohibited in buffer areas. Stormwater detention ponds shall be located at least 20 feet from the road right of way and shall be screened with evergreen shrubs.
5. Easements – No landscaping materials required by this Section shall be located or planted on property subject to utility or drainage easements without written consent of the City and/or the easement holder.

6. Non-landscaped and non-constructed areas – All open space areas that are not landscaped shall be at a minimum seeded with grass or other appropriate ground cover.
7. Foundation Plantings - Foundation plantings are encouraged adjacent to commercial, office and industrial buildings and shall be incorporated into landscaping plans where appropriate.

**6.3.6 INSTALLATION STANDARDS**

All landscaping, including mulching and seeding, shall be completed in accordance with approved landscape plans before the issuance of a certificate of occupancy.

A written request to defer the installation of landscaping due to one of the following reasons may be approved for no longer than six months if submitted to the Department of Planning and Community development prior to a request for a certificate of occupancy or final plat approval.

1. Unavailability of plant materials;
2. Installation of the plant material at the time of the request would jeopardize the health of the plants (Planting May 15<sup>th</sup> through September 15<sup>th</sup> is not encouraged);
3. Weather conditions prohibit the completion of the planting.

Whenever a certificate of occupancy is requested prior to the required landscaping being installed, an improvement guarantee fulfilling the requirements of Section 2.12 (Improvement guarantees) must be requested and executed.

All new plant material shall be of good quality, disease free and shall be properly installed and organically mulched (3-4” layer) in accordance with accepted practices in the landscape industry.

**Table 6-6  
Tree Installation Minimum Separation Distance Requirements**

<b>Tree Type</b>	<b>Right of Way Lines</b>	<b>Sidewalks, Paved Ped. Surfaces</b>	<b>Buildings</b>	<b>Utility Wires, Poles, Streetlights</b>	<b>Underground Utilities</b>	<b>Utility Structures, Vaults</b>
<b>Large Trees &gt;40’ at Maturity</b>	4.5’	4.5’	10’	15’	10’	10’
<b>Small Trees &lt; 40’ at Maturity</b>	4.5’	4.5’	5’	10’	8’	5’

Note: All measurements shall be made horizontally from the center of the trunk at the base of the subject vegetation.

**Table 6-7  
Minimum Plant Sizes at Installation**

<b>Material Type</b>	<b>Minimum Size at Installation</b>	<b>Minimum Mature Size</b>
<b>Large tree</b>	10’ in height, 2” caliper	40’ in height, 40’ crown diameter
<b>Small tree, multi stem</b>	8’ in height	20’ in height, 20’ crown diameter
<b>Small tree, single stem</b>	8’ in height, 2” caliper	20’ in height, 20’ crown diameter
<b>Large shrub</b>	36” in height, 3 gallon container, 18” spread	6’ in height
<b>Medium shrub</b>	18” in height, 1 gallon container, 12” spread	3’ in height
<b>Small shrub</b>	12” in height, 1 gallon container	18” in height
<b>Screening shrubbery</b>	48” in height, 5 gallon container	6’ in height

Note: Caliper measurements for all trees shall be taken at six inches above the ground. For the purposes of this Section, the minimum plant sizes shall be approximate, provided the intent of these requirements is not compromised. Shrubbery used for screening purposes (type B, C and D Buffers) must be at least four (4) feet in height at time of planting.

**6.3.7 SELECTION STANDARDS**

Due to a specific physical property, disease susceptibility or other conditions, the following species are restricted in selection as approved plant materials in the following situations:

Not permitted within 25 feet of any above ground utility lines – due to the brittleness of the wood.

<u>Botanical Name</u>	<u>Common Name</u>
Acer saccharinum .....	Silver Maple
Betula spp. ....	Birches
Catalpa speciosa.....	Northern Catalpa
Cladrastis kentukea.....	Yellowwood
Fraxinus spp. ....	Ashes
Juniper virginiana.....	Red Cedar
Liliodendron tulipifera.....	Tulip Poplar
Populus alba.....	White Poplar
Paulownia tomentosa.....	Royal Pawlonia
Pinus spp.....	Pines
Ulmus pumila .....	Siberian Elm

Not permitted within 25 feet of any water or sewer line – due to invasive root growth.

<u>Botanical Name</u>	<u>Common Name</u>
Salix spp. ....	Willows
Ulmus spp.....	Elms
Pinus spp.....	Pines

The following species are restricted in use to no more than the specified percentage for any tree or shrub category per parcel or project – due to disease susceptibility:

<u>Category</u>	<u>Botanical Name</u>	<u>Common Name</u>
No more than 25% of large trees	Betula nigra	River Birch
No more than 25% of small trees	Cornus spp.	Dogwoods
	Lagerstroemia indica	Crepe Myrtle
No more than 10% of small trees	Pryus spp.	Bradford Pears
Not permitted as an evergreen shrub	Photina glabra	Red Tip Photina

Approved plant materials - The list of approved plant materials can be found in Appendix B, Landscaping Technical Design Manual. Additional useful information is provided in the plant list including expected mature size, growth rate, site conditions, special characteristics, possible problems and additional comments.

**6.3.8 MAINTENANCE STANDARDS**

1. The owners of the property, their agents, heirs and assigns shall be responsible for the installation, preservation, mulching, weeding and maintenance of all landscaping and physical features required under this Section.
2. All dead, substandard and unhealthy plant materials shall be removed and replaced in conformance with the standards of this Section and the approved landscape or site plan. In the event that any vegetation required by this Section is damaged due to weather or a natural catastrophe, the owner shall have one hundred eighty (180) days to replace the affected plant materials.
3. Pruning shall consist of removal of dead, dying, diseased, interfering, obstructing and weak branches as well as selective thinning to lessen wind resistance and improve appearance.

- All cuts shall be made close to the trunk or parent limb without leaving a protruding stem and without cutting into the branch collar or the branch bark ridge.
  - Directional pruning and drop crotch pruning shall be used to prune live branches.
  - Tree limbs too heavy to handle by hand shall be precut above the final cut to prevent splitting or peeling of the bark. Where necessary to prevent tree or property damage, branches shall be lowered to the ground by ropes or equipment.
  - Treatment of cuts and wounds with tree wound dressing is discouraged. If such treatment is necessary, materials should be non-toxic to the cambium layer.
  - Tree topping shall be prohibited on all public property and designated rights-of-way and for all trees falling under the jurisdiction of this Ordinance, including both newly installed and preserved trees.
4. Fertilizer shall not be applied to any vegetation within any riparian buffer required by this Ordinance, and as required by 15A NC AC 2B.0233. Application of fertilizer should conform to standards as established by the North Carolina Cooperative Extension Service. No fertilizer shall be allowed to remain on sidewalks or driveways after application.
  5. All landscaped planting areas shall be stabilized from soil erosion immediately upon planting and shall be maintained for the duration of the use.

### **6.3.9 BUFFER YARD DESIGN STANDARDS**

The purpose of a buffer yard is to provide a physical transition between uses that may differ in development use, intensity and/or density. The buffer yard reduces the objectionable impact of one use upon another caused by lighting, noise, visual character, or other site- or use-related effects. These landscaped planting yards are intended to insure that a natural or landscaped area of appropriate size and density of plantings is planted or preserved between zoning districts or uses. Buffer yards shall be of different types, based upon the relationship between the two adjacent uses.

1. Prohibited uses – The construction of any building, parking or drive area, outdoor storage or display or the placement of any mechanical equipment within the landscaped buffer yard is not permitted except as provided in Section 6.3.9.9. To allow utility connections to adjoining properties, utilities may cross a buffer at a perpendicular angle and shall not be allowed to pass parallel through a buffer. Signs may be placed within the buffer yard consistent with the regulations of Section 6.4 (Signage Standards). Active recreational uses, such as play fields, swimming pools, tennis courts etc. or circulation drives, loading areas and parking lots shall not be permitted in the buffer yard.
2. Permitted uses – The following uses may be permitted in a buffer yard provided that none of the required plant material is eliminated, the intended screening is accomplished, the total width of the buffer yard is not reduced and all other requirements of this Section are met:
  - Passive recreation
  - Sculpture, outdoor furniture, picnic areas
  - Pedestrian or bike trails
  - Golf courses
3. Reduction in the required buffer yard – Where a dedicated buffer yard exists on an abutting property, a reduction or elimination of a buffer yard for a property to be developed may be permitted subject to the following:
  - The adjacent property owners have provided a written, legally-binding agreement, such as a recorded easement or deed restriction, restricting the use of the dedicated buffer yard to uses provided for in this Section; and

- The “net” buffer yard satisfies the minimum buffer yard requirements of this Section.  
The net buffer yard shall include the cumulative total for both the required buffer yards.
4. Existing vegetation – Existing healthy vegetation may be counted toward the required landscaping if it fulfills all the requirements of Section 6.3.4 (Tree preservation requirements). To do so, the landscape plan shall indicate the type, number and size of the existing plants that are sufficient to comply with the requirements of the respective yard type. It is not necessary to indicate the total inventory of existing plants, only those intended to meet the requirements of this Ordinance shall be required to be listed.
  5. Application toward setback requirements – Buffer yard areas may be counted toward the required building setbacks. However, the required buffer width may not be a simple setback, but is to be planted to meet the requirements of this Section. The plants comprising the buffer shall be arrayed across the entire width of the buffer in a manner designed to achieve a suitable buffering effect, and not just planted in a row or rows.
  6. Designation of buffer yard as landscaped area for non-residential property – Buffer yards shall be designated as landscape buffer yard easements on the application for development approval and on the subdivision plat. The buffer yard shall be recorded with the title of the property as a landscape buffer yard easement.
  7. Ownership of buffer yards in residential subdivisions – The required buffer yards in a residential subdivision shall not be wholly owned (in fee simple absolute) by the owner of an individual lot. But rather that the buffers be owned by a property or home owner’s association, third party or shall otherwise be divided so that the buffer is not removed, modified or damaged. However, buffer yards may be left under the control of the lot owner provided that the width of the buffer yard is doubled and each lot contain a deed restriction that the buffer yard be left undisturbed. Any required buffer (including those required as a zoning condition) for residential developments shall not be credited toward meeting the lot size requirements – whatever its ownership status, but may be credited toward meeting the open space requirements.
  8. Buffer yard on a property line – when platting abutting lots, the applicant may dedicate a buffer yard that straddles the property line, provided the cumulative buffer width is maintained for both yards.
  9. Common Access Drives: A shared ingress-egress easement driveway may relocate a non-visual separation bufferyard to provide efficient access between properties provided the required bufferyard is planted adjacent to the proposed access easement and all landscaping is installed pursuant to this section.
  10. Walls, fences or berms – A wall, earthen berm, or fence, a minimum of six feet high to a maximum of eight feet high (constructed of vinyl masonry, cedar, redwood or pressure treated lumber) may be used to reduce the minimum width of an opaque buffer by 50 percent. All fences shall be constructed with two identical sides/faces or so that the non-structural “good” side/face is directed toward the adjacent property or the public right of way. Fences/ located on both sides of the fence/wall. Earthen berms may vary in height from four to six feet, shall not have a slope greater than three to one and must be covered with turf grasses or other appropriate planting material. Berms must be at least 6 feet tall in order to reduce a screening buffer yard by 50 percent.

Yard types: There shall be four different buffer yard types – A, B, C, D. The type to be used will be determined by the relationship between the adjacent land use classes. There shall be five land use classes based upon the *specific land use* to be developed, which is permitted by right or conditionally, in the following groupings of zoning district or land use groupings as listed in the Table of Permitted Uses (Section 5.4) of this Ordinance.

**Class 1**

Residential Uses – single family detached only  
AG Agricultural  
R-40 Single Family – rural density  
R-20/20A Single Family – very low density  
R-16H Single-Family - low density  
R-16 Single family – low density  
R-12SF Single Family – low density  
R-9SF Single Family – medium density  
RM-9 Single family – medium density  
R-6SF Single Family – high density

**Class 2**

Residential Uses - other than class one  
R-12 Multi-Family – low density  
R-9 Multi-Family – medium density  
R-6 Multi-Family – high density  
RM-8 Manufactured Home Park  
PUD Planned Unit Developments  
(Residential)  
Townhomes and Multi-family

**Class 3**

Civic, Business and Personal Service Uses  
TO – Transitional Office  
O&I-1 Office and Institutional  
O&I-2 Office and Institutional – Public  
NB Neighborhood Business  
CBD Central Business District  
PUD Planned Unit Developments (mixed use)

**Class 4**

Retail Trade (including retail & office use in I-2)  
Recreation, Entertainment, Food Service, Lodging  
AB Airport Business  
GB General Business  
HB Highway Business  
SC Shopping Center

**Class 5**

Industrial, Warehouse, Distribution and Wholesaling Uses  
Utility, Public Service, Communication uses  
Transportation uses  
I-1 Light industry  
I-2 General Industry (excluding retail and office uses)  
I&BP-1 Industrial and Business Park  
I&BP-2 Industrial and Business Park

The Buffer Yard Type (Table 6-8) identifies the type required for a given development, based on the relationship between adjacent land uses. If an adjacent parcel is undeveloped, the minimum buffer shall be determined solely based on the zoning of the adjacent parcel. Otherwise, the required buffer yard type will be based on the specific land use of the proposed development. The Buffer Yard Landscaping Requirements (Table 6-9) contains the required plantings and dimensions for the respective buffer yards. The width of the buffer yard and the density of plantings increase as the difference in the nature and intensity of development in the respective adjacent land uses increase.



**Table 6-8**

**Buffer Yard Type for Abutting Land Use Classes**

Land Use Class	Existing Class 1	Existing Class 2	Existing Class 3	Existing Class 4	Existing Class 5
<b>Proposed Class 1</b>	n/a	B <sup>3</sup>	B <sup>2</sup>	C <sup>1/2</sup>	D <sup>1/2</sup>
<b>Proposed Class 2</b>	B <sup>3</sup>	A	B <sup>3</sup>	C <sup>1</sup>	D <sup>1</sup>
<b>Proposed Class 3</b>	C <sup>1</sup>	B <sup>3</sup>	A	A	C <sup>1</sup>
<b>Proposed Class 4</b>	C <sup>1</sup>	C <sup>1</sup>	A	A	B <sup>3</sup>
<b>Proposed Class 5</b>	D <sup>1</sup>	D <sup>1</sup>	C <sup>1</sup>	B <sup>3</sup>	A

Notes:

1. Complete visual separation is required using densely planted, evergreen landscaping that will provide complete visual separation within three years of planting.
2. New single-family subdivisions shall provide the required buffer yard if they abut existing non-residential developments which were constructed before the adoption of this Ordinance and lack the required buffer yard. If the adjacent non-residential development includes the required buffer yard, none shall be required of the residential subdivisions.
3. Semi-opaque visual separation is required using densely planted evergreen landscaping that will provide visual separation within 3 years of planting.

**Table 6-9**

**Buffer Yard Landscaping Requirements**

Buffer Yard Type	Minimum Width	Minimum Large Trees	Minimum Small Trees	Minimum Large Shrubs	Minimum Small Shrubs
<b>A</b>	10'	1 per 100'	2 per 100'	5 per 100'	5 per 100'
<b>B</b>	15'	2 per 100'	3 per 100'	10 per 100'	10 per 100'
<b>C</b>	20'	3 per 100'	4 per 100'	20 per 100'	10 per 100'
<b>D</b>	50'	4 per 100'	5 per 100'	25 per 100'	15 per 100'

Notes: When calculating quantities of plants, fractions shall be rounded upward to the higher whole number for decimals of .5 or greater and downward to the lower whole number for decimals less than .5.

1. Complete visual separation is required using densely planted, evergreen landscaping that will provide complete visual separation within three years of planting, or a six foot fence (constructed of masonry or pressure treated lumber).
2. New single-family subdivisions shall provide the required buffer yard if they abut existing non-residential developments which were constructed before the adoption of this Ordinance and lack the required buffer yard. If the adjacent non-residential development includes the required buffer yard, none shall be required of the residential subdivisions.
3. When visual separation is required, the Administrator may, during inspection, require additional landscaping if the existing or proposed landscaping does not provide complete visual separation.
4. A Type A bufferyard may be reduced to five (5) feet for properties less than four (4) acres in size.
5. Type A landscaping materials may be relocated outside required buffer areas with the approval of the Planning Director when overall appearance of the site would be improved by relocation of the landscaping material.

**6.3.10 STREET YARD DESIGN STANDARDS**

1. Protected street yards - A protected street yard is required along each property frontage that abuts a public or private street. The yard shall be a minimum eight feet in depth, measured perpendicular from the right of way/property line and extend the length of the linear frontage of the property line.
2. Impervious surface restrictions - No more than fifteen percent of the protected street yard may contain impervious material. Access drives to the property are excluded from this requirement.
3. Plantings in the protected street yard - The area is to contain, at a minimum, grass or ground cover. Parking lot buffers and street trees may be planted in the protected street yard.
4. Prohibited uses - Parking, off street loading and merchandise display and storage are prohibited in the protected street yard.
5. Street tree landscaping required - Street trees shall be required along each property frontage that abuts a private or public street. It is not the intent of this Section to form a continual landscaped planting area; however, at a minimum, trees shall be planted and mulched according to acceptable City standards.
6. Street tree location – Required street trees shall be planted in an area from the property line to a maximum distance of twenty-five feet from the property line. No planted or existing tree located more than twenty-five feet from the property line shall count toward the street tree requirement. All required street trees must meet the placement standards of Table 6-6 (Tree installation, minimum separation distances). Required street trees – Street trees shall be planted according to one of the following requirements:
  - Large trees, where feasible, shall be planted at a rate of one tree for every forty feet of linear street frontage, with a minimum of one tree on any street frontage less than forty feet.
  - In the case of conflict with utility lines, overhead or underground, or other prohibiting factors two small trees shall be planted for every required large tree or a combination of large and small trees where at least one half of the large tree requirement is installed and one small tree is installed for every remaining large tree required. (A minimum of at least two large trees is required).
7. Street tree distribution – Trees shall be equally distributed along the street frontage, but they are not required to be at absolute equal intervals. This allows for flexibility in design and for building identification while discouraging long intervals without trees.
8. Sight triangles – No street tree shall be planted within a sight triangle without prior approval from the City Engineering Division.
9. Street tree pruning – For security, accessibility and visual identification, tree limbs shall be pruned up to seven feet in the street yard in the second year after installation.
10. Shrubbery is encouraged to supplement required street trees and is recommended to be incorporated into all submitted landscape plans.

### **6.3.11 VEHICULAR SURFACE AREA (VSA) DESIGN STANDARDS**

Landscaping requirements of this section shall be applicable as required in Section 6.3.2. However, lots that have a proposed impervious surface ratio (ISR) of less than 0.20 (20%) are exempt from the requirements of this section except all parking spaces shall be located within 60 ft. of a parking lot tree.

The following landscaping standards shall apply to all VSA landscaping:

- (1) Vehicle accommodations shall be shaded by *medium to large trees*, either preserved or planted;
- (2) All planting shall be distributed throughout the VSA; All vehicular surface areas shall be located within 60 ft. of a parking lot tree.
- (3) A minimum of 50% of the required landscaping of this section shall be provided in the interior of the VSA, such as landscaping islands, at the end of parking bays, inside medians, or between parking spaces;
- (4) Trees and shrubs that are required for landscape buffers and are located within 25 ft. of the vehicular surface area may count towards the VSA landscaping requirement. Street trees shall not count towards the VSA landscaping requirement.
- (5) If a vehicular surface buffer is required, the shrubs required to meet the vehicular surface buffer requirement may count toward the VSA landscaping requirement.
- (6) 50% of VSA landscaping shall be of an evergreen species.
- (7) Any shrub or tree planted within ten (10) feet of a building does not qualify for meeting the VSA landscaping requirements.

The amount of landscaping required is determined by the amount and intensity of the proposed impervious surface on the lot. The impervious surface ratio (ISR) is determined by the following formula:

- a. Total amount of impervious surface area on the lot including building area (sq. ft.).....
- b. Total lot area (sq. ft.).....
- c. ISR (Divide impervious surface area by total lot area).....

<u>Impervious Surface Ratio</u>	<u>Impervious Surface Intensity</u>
If ISR is 0.86 to 1.00 .....	ISI is high
If ISR is 0.70 to 0.85 .....	ISI is moderately high
If ISR is 0.40 to 0.69 .....	ISI is moderate
If ISR is 0.20 to 0.39 .....	ISI is low
If ISR is less than 0.20 stop here .....	No landscaping is required

- d. Total impervious surface area **not including** the building area (sq. ft.) \_\_\_\_\_

Required Landscaping Calculations: Based on the ISR calculated on line c. above, choose the appropriate Impervious surface intensity (ISI) to determine the amount of required landscaping:

(a) Required Trees Calculation

<u>ISI Category</u>	<u>Total impervious surface area not Including buildings (line d. above)</u>	<u>Factor</u>	<u>Trees Required</u>
High.....	x	0.0005 =	_____
Moderately high .....	x	0.0004 =	_____
Moderate .....	x	0.0003 =	_____
Low .....	x	0.0002 =	_____

(b) Required Shrubs Calculation

<u>Category</u>	<i>Total impervious Surface area not Including buildings (line d. above)</i>	<u>Factor</u>	<u>Shrubs Required</u>
High.....	x	0.0045 =	_____
Moderately high .....	x	0.0035 =	_____
Moderate .....	x	0.0025 =	_____
Low .....	x	0.0015 =	_____

If the amount of proposed parking spaces is twenty five percent or more than the minimum required spaces as delineated in Table 6-1 (Off Street Parking Requirements), an increase in the amount of required vehicular surface area landscaping is required. The amount of increase is determined as follows.

The required increase in additional landscaping:

<i>% Increase in parking beyond minimum</i>	<i>Percent Increase in required parking yard landscaping</i>	<i>Required additional Trees</i>	<i>Shrubs</i>
25% - 50%	Required trees and shrubs x 0.05 =	_____	_____
51% - 100%	Required trees and shrubs x 0.10 =	_____	_____
101% or more	Required trees and shrubs x 0.20 =	_____	_____

The total amount of required trees and shrubs equals the amount determined through the Impervious Surface Intensity calculation plus, if necessary, the additional amount required by the Percent Increase calculation.

Exceptions and deductions to required landscaping - As an incentive to create innovative design, the following standards may be applied to reduce the required amount of VSA landscaping for a total reduction not to exceed twenty percent. For each standard incorporated into the VSA design, you may reduce the required number of trees and shrubs by five percent.

1. A minimum of fifty percent of the parking is provided to the side or rear of the building.
2. Shared parking is provided per Section 6.1.7 (Shared parking).
3. A minimum of twenty-five percent of the total parking lot is paved using paving grids or other approved pervious materials.
4. An undisturbed natural area, wholly within the parking area and a minimum size of five percent of the total parking area, is preserved according to Section 6.3.4 (Tree preservation requirements). The preservation of this area will not reduce the required landscaping beyond the five percent credit awarded here. No preserved trees in this natural area will be counted against any of the landscaping required by this Section.

**6.3.12 VEHICULAR SURFACE BUFFER**

If proposed parking or any part of a VSA is within fifteen (15) feet of the right-of-way, as measured perpendicularly from the right-of-way/property line, a vehicular surface buffer (VSB) is required.

Landscaping requirements – Evergreen shrubs shall be planted along the peripheral edge of the parking area that is within fifteen feet of the right of way. The shrubs are expected to have mature

height and width of three and one half feet within three years, except for the display areas of automobile sales lots, which shall have a mature height of two and one half feet.

Screen Location – All shrubbery shall be planted three feet on center and no closer than three feet from the curb or edge of the parking area.

To calculate the amount of shrubbery required, the following formula shall be applied:

Total linear footage of VSA within 15 feet of right-of-way \_\_\_\_\_  
Divide line (a.) by 3 \_\_\_\_\_  
Total Shrubs required is the sum of line (b.) \_\_\_\_\_

Sight distance triangle – No shrubbery shall block or be located within the sight distance triangles established for the respective rights of way.

### **6.3.13 MISCELLANEOUS SCREENING DESIGN STANDARDS**

Service areas, loading and delivery docks, dumpsters, trash/recycling containers, HVAC units and outdoor storage areas shall be screened from off-site views to achieve a complete visual barrier. This opaque screen may consist of fencing, walls, evergreen landscaping, berms, raised roofs (for roof-mounted HVAC) or other methods approved by the Planning and Community Development Director. This shall apply to all nonresidential and multi-family development as well as instances where a change of use takes place. Dumpster screening shall be at least 6 ft. in height and provide opaque gates that also serve to screen the dumpster. Dumpsters exceeding six ft. in height shall be screened by fencing, walls, landscaping and other methods equal to the height of the dumpster. Dumpster lids shall remain closed and not be allowed to be overfilled. All commercial, office and industrial dumpsters not complying with the screening standards of this section that are visible from a public street right-of-way or residentially zoned or developed property shall be brought into compliance with this section within one year of adoption of this Ordinance. The Planning Director may waive or modify this requirement if the dumpster's location, orientation or other factors make screening impractical.

### **6.3.14 RESIDENTIAL YARD DESIGN STANDARDS**

As a requirement of residential subdivision approval, the subdivider shall plant trees in the front setback of each lot and in any side or rear lot abutting an existing or proposed right-of-way in the subdivision.

Residential street yard requirements - Each lot, including open space/recreational areas and storm water retention areas, that abuts a private or public street in a residential subdivision must have one large street tree for every forty feet of street frontage or two small trees for every thirty feet of lot frontage. At a minimum, each lot shall have one large tree or two small trees in fulfillment of this requirement.

Street tree location - The required street trees shall be planted within the area that measures eight feet perpendicularly from the edge of the street right of way and extends the length of the linear frontage of the lot.

### **6.3.15 ALTERNATIVE METHODS OF COMPLIANCE**

Use of alternate plan, material or methods – Alternate landscaping plans, plant materials or planting methods may be used where unreasonable or impractical situations would result from strict application of landscaping requirements or where necessary to protect existing vegetation. Such situations may result from streams, natural rock formations, topography, protected riparian buffer locations, other physical conditions; or from lot configuration, utility easements or unusual site conditions.

Approval of alternate plan – For site plans that are not reviewed by the City Council, the Planning Director may approve alternate landscaping plans that propose different plant materials, methods and locations if the quality, effectiveness, durability and performance are equivalent to that required by this Ordinance. The Planning Director may require that sufficient evidence or proof be submitted to substantiate any claim that may be made regarding its use.

### **6.3.16 SECTION RESERVED**