TREE AND PLANT MATERIALS FOR LANDSCAPING

PREPARED IN ACCORDANCE WITH SECTION 67
OF THE NEW HANOVER COUNTY
ZONING ORDINANCE

THE NEW HANOVER COUNTY PLANNING DEPARTMENT
MAY 1990
Tree and Plant Materials for Landscaping

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RETENTION OF EXISTING VEGETATION

EXISTING TREE TO BE PRESERVED

DIAMETER AT BREAST HEIGHT
- Hardwood - 8"
- Conifer - 12"
- Dogwoods and American Hollies - 4"

GROUND LEVEL

4" - 6" ABOVE GROUND (Breast Height)

NOTE: All trees in a required buffer greater than 8" DBH must be retained.
NOTE: If a protected tree is substantially damaged or destroyed or dies within three years after completion of construction, then replacement trees shall be planted on the site with a total diameter equal to twice the diameter of the protected tree. For instance, if a 16" diameter tree is cut down, eight 4" trees will be replanted.
EXAMPLE OF PLANTED BUFFER STRIP

NOT TO SCALE

THREE ROW SCREEN

NOTE: See Tables 1 and 2 for spacing requirements of plants.
PLANT PLACEMENT FOR SOLID ARTIFICIAL FENCE
NOT TO SCALE

THREE ROW SCREEN

ROWS SHALL BE SPACED ON CENTER BETWEEN 85% AND 100% OF THE DIAMETER AT MATURITY

COMMON PROPERTY LINE

PLAN

NOTE: See Tables 1 and 2 for spacing requirements of plants.

SECTION

ELEVATION

50% VISUAL OPACITY AT PLANTING
PLANT PLACEMENT FOR PERMEABLE ARTIFICIAL FENCE

NOT TO SCALE

THREE ROW SCREEN

NOTE: See Tables 1 and 2 for spacing requirements of plants.
EXAMPLE OF BERM WITH VEGETATION

NOT TO SCALE

NOTE: See Tables 1 and 2 for spacing requirements of plants.

SECTION

NOTE: The slope of the berm shall be stabilized with vegetation and no steeper than 3:1.
SIGHT ANGLES AT ROAD INTERSECTIONS

PLAN VIEW

RIGHT-OF-WAY

30'

SIGHT ANGLES

15'

30'

AREA OF UNOBSERVED VISIBILITY TO BE MAINTAINED AT AN ELEVATION OF BETWEEN 3' AND 7' ABOVE PAVEMENT LEVEL.

ACCESS FROM PARKING

PLANT MATERIAL PERMITTED IN THIS AREA PRODUCED IT DOES NOT OBSTRUCT VISIBILITY BETWEEN 3' AND 7' ABOVE PAVEMENT LEVEL.

SEE SECTION BELOW.

SECTION

ROAD

AREA WITHIN SIGHT ANGLES

3' ABOVE PAVEMENT

PLANT MATERIAL
EXAMPLE OF COMMERCIAL USE WITH BUFFER STRIPS

SCALE: 1" = 50'

NOTES: Interior landscaping equals 8% of parking lot/vehicular use area. Buffer width equal to 50% of required setback; minimum of 20'.
EXAMPLE OF PARKING LOT PERIMETERS AND INTERIORS

SCALE: 1" = 50'

NOTE: Interior landscaping equals 8% of parking lot/vehicular use area.
PARKING LOT PERIMETER
PLANTING STRIPS

SCALE: 1" = 10'

DECIDUOUS OR EVERGREEN TREES

PLANTING STRIP

18' to 27' ON CENTER

18' to 27' ON CENTER

10' WIDTH

MINIMUM

PLANTING ISLANDS

SCALE: 1" = 5'

EXISTING OR PLANTED TREE

PLANTING ISLAND

GROUND COVER

12' MINIMUM

TIRE BLOCK OR CURBING TO PREVENT CAR OVERHANG BY MORE THAN 1'

PARKING LOT
Table 3: Recommended Trees
for purposes other than screening (i.e. planting islands)

*Acer barbatum* - Southern Sugar Maple  
*Acer rubrum* - Red Maple  
*Amelanchier canadensis* - Shadblow Serviceberry  
*Betula nigra* - River Birch  
*Cercis canadensis* - Redbud *  
*Corlus floridana* - Dogwood *  
*Cunninghamia lanceolata* - Chinafir  
*Diaspyrus virginiana* - Common Persimmon  
*Eriobotrya japonica* - Loquat  
*Ficus carica* - Common Fig  
*Fraxinus americana* - White Ash  
*Ginkgo biloba* - Ginkgo  
*Gleditsia triacanthos inermis* - Thornless Honeylocust  
*Koelreuteria paniculata* - Goldenrain Tree  
*Lagerstroemia indica* - Crape Myrtle  
*Liquidambur styraciflua* - American Sweetgum  
*Magnolia x soulangiana* - Saucer Magnolia  
*Myrica cerifera* - Southern Waxmyrtle  
*Nyssa sylvatica* - Black Gum  
*Oxydendrum arboreum* - Sourwood, Sorrel Tree  
*Pinus palustris* - Longleaf Pine  
*Pinus thunbergiana* - Japanese Black Pine  
*Prunus serrulata* 'Kwanzan' - Kwanzan Flowering Cherry  
*Prunus yedoensis* - Yoshino Cherry  
*Pyrus calleryana* 'Bradford' - Bradford Pear  
*Quercus alba* - White Oak  
*Quercus falcata* - Southern Red Oak  
*Quercus laurifolia* 'Darlington' - Darlington Laurel Oak  
*Quercus nigra* - Water Oak  
*Quercus phellos* - Willow Oak  
*Quercus virginiana* - Southern Live Oak  
*Sassafras albidum* - Common Sassafras  
*Taxodium distichum* - Common Baldcypress

* requires partial to full shade

Table 4: Recommended Ground Covers
for planting islands

*Ajuga reptans* - Ajuga, Carpet Bugle  
*Cotoneaster dammeri* - Cotoneaster  
*Euonymus fortunei* - Wintercreeper Euonymus  
*Hedera helix* - English Ivy  
*Hypericum calycinum* - Aaronsbeard  
*Juniperus conferta* - Shore Juniper  
*Juniperus horizontalis* - Creeping Juniper - all cultivars  
*Liriope muscari* - Liriope, Lillyturf  
*Liriope spicata* - Creeping Liriope, Creeping Lillyturf  
*Ophiopogon japonicus* - Monkey or Mondo Grass  
*Santolina chamaecyparissus* - Lavender-Cotton  
*Teucrium chamaedrys* - Wall Germander  
*Vinca minor* - Common Periwinkle

Notes
1. All trees used shall be no less than 6' in height at planting.
2. Use of ornamental or flowering plants is encouraged to provide variety. Assistance in choosing these plants is available from New Hanover County Zoning Inspections or the Agricultural Extension Service.
<table>
<thead>
<tr>
<th>Name</th>
<th>At Maturity Average Height (H) Spread (S)</th>
<th>Maximum Plant Spacing</th>
<th>Growth Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Cleyera japonica</em> Japanese Cleyera</td>
<td>8'-10' (H) 6' (S)</td>
<td>3' apart 8' apart 3.3' apart 16' apart</td>
<td>M</td>
<td>needs to be pruned, intolerant of wet sites, tolerates full shade</td>
</tr>
<tr>
<td><em>Elaeagnus pungens</em> Thorny Elaeagnus</td>
<td>10'-15' (H) 14' (S)</td>
<td>7' apart 18.7' apart 8.7' apart 37.3' apart</td>
<td>R</td>
<td>requires pruning, tolerates salt</td>
</tr>
<tr>
<td><em>Ilex cornuta</em> Chinese Holly</td>
<td>8'-10' (H) 20' (S)</td>
<td>10' apart 26.7' apart 12.7' apart 53.3' apart</td>
<td>R</td>
<td>tolerates salt &amp; drought</td>
</tr>
<tr>
<td><em>Ilex</em> 'Nellie R. Stevens' Nellie R. Stevens Holly</td>
<td>15'-20' (H) 10' (S)</td>
<td>5' apart 13.3' apart 6' apart 26.7' apart</td>
<td>R</td>
<td>drought tolerant</td>
</tr>
<tr>
<td><em>Ilex vomitoria</em> Yaupon Holly</td>
<td>10'-15' (H) 9' (S)</td>
<td>4.5' apart 12' apart 5.3' apart 24' apart</td>
<td>M</td>
<td>tolerates salt &amp; heavy pruning</td>
</tr>
<tr>
<td><em>Illicium anisatum</em> Japanese Anise-tree</td>
<td>10'-12' (H) 9' (S)</td>
<td>4.5' apart 12' apart 5.3' apart 24' apart</td>
<td>M</td>
<td>tolerates heavy shade</td>
</tr>
<tr>
<td><em>Ligustrum lucidum</em> Glossy Privet</td>
<td>20'-25' (H) 12' (S)</td>
<td>6' apart 16' apart 7.3' apart 32' apart</td>
<td>R</td>
<td>good wind break</td>
</tr>
<tr>
<td><em>Myrica cerifera</em> Southern Waxmyrtle</td>
<td>10'-15' (H) 9' (S)</td>
<td>4.5' apart 12' apart 5.3' apart 24' apart</td>
<td>M</td>
<td>tolerates salt, wet sites</td>
</tr>
<tr>
<td><em>Nerium oleander</em> Oleander</td>
<td>10'-12' (H) 8' (S)</td>
<td>4' apart 10.7' apart 4.7' apart 21.3' apart</td>
<td>R</td>
<td>tolerates bad soils, salt, heat &amp; pollution - poisonous</td>
</tr>
<tr>
<td><em>Osmanthus x fortunei</em> Fortunes Osmanthus</td>
<td>15'-20' (H) 13' (S)</td>
<td>6.5' apart 17.3' apart 8' apart 34.7' apart</td>
<td>M</td>
<td>needs room, tolerates salt</td>
</tr>
<tr>
<td><em>Photinia serrulata</em> Redtip, Chinese Photinia</td>
<td>15'-20' (H) 13' (S)</td>
<td>6.5' apart 17.3' apart 8' apart 34.7' apart</td>
<td>R</td>
<td>intolerant of wet sites, <em>Photinia glabra</em> (Japanese Photinia) is acceptable</td>
</tr>
<tr>
<td><em>Pittosporum tobira</em> Japanese Pittosporum</td>
<td>10'-12' (H) 12' (S)</td>
<td>6' apart 16' apart 7.3' apart 32' apart</td>
<td>S</td>
<td>tolerates sandy soil &amp; hot, dry sites</td>
</tr>
<tr>
<td><em>Podocarpus macrophyllus</em> Chinese Podocarpus</td>
<td>10'-15' (H) 5' (S)</td>
<td>2.5' apart 6.7' apart 2.7' apart 13.3' apart</td>
<td>S</td>
<td>tolerates salt, best in full sun</td>
</tr>
</tbody>
</table>

Notes
1. All plants listed for screening material are evergreen.
2. A variety of plant materials should be used for screening.
3. Growth rate approximations in height: S = slow - up to 1' per year; M = moderate - from 1' to 2' per year; R = rapid - above 2' per year
4. Use of ornamental or flowering plants is encouraged to provide variety. Assistance in choosing these plants is available from New Hanover County Zoning Inspections or the Agricultural Extension Service.
### Table 2: Screening Materials - Trees

<table>
<thead>
<tr>
<th>Name</th>
<th>At Maturity Ave. Height (H)</th>
<th>Maximum Plant Spacing For Two-Three Rows</th>
<th>Growth Rate</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>X Cupressocyparous leylandii</td>
<td>60'-70' (H) 17' (S)</td>
<td>16' apart</td>
<td>50% opacity</td>
<td>100% opacity</td>
</tr>
<tr>
<td>Leyland Cypress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilex cassine</td>
<td>15'-25' (H) 12' (S)</td>
<td>11' apart</td>
<td>M</td>
<td>tolerates salt, wet sites</td>
</tr>
<tr>
<td>Dahoon Holly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilex latifolia</td>
<td>20'-30' (H) 12' (S)</td>
<td>11' apart</td>
<td>M</td>
<td>drought tolerant, avoid full sun and winds</td>
</tr>
<tr>
<td>Lusterleaf Holly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilex opaca 'Savannah'</td>
<td>20'-30' (H) 18' (S)</td>
<td>17' apart</td>
<td>S</td>
<td>tolerates air pollution, avoid dry windy sites</td>
</tr>
<tr>
<td>Savannah American Holly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Juniperus virginiana</td>
<td>30'-40' (H) 16' (S)</td>
<td>15' apart</td>
<td>M</td>
<td>tolerates salt, poor soils</td>
</tr>
<tr>
<td>Eastern Redcedar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnolia grandiflora</td>
<td>50'-60' (H) 35' (S)</td>
<td>34' apart</td>
<td>M</td>
<td>needs room, tolerates wet sites</td>
</tr>
<tr>
<td>Southern Magnolia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prunus caroliniana</td>
<td>20'-30' (H) 20' (S)</td>
<td>19' apart</td>
<td>R</td>
<td>tolerates heavy pruning</td>
</tr>
<tr>
<td>Carolina Cherrylaurel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes**

1. All plants listed for screening material are evergreen.
2. A variety of plant materials should be used for screening.
3. All trees used shall be no less than 6' in height at planting.
4. Growth rate approximations in height:
   - **S** = slow - up to 1' per year
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   - **R** = rapid - above 2' per year
5. Use of ornamental or flowering plants is encouraged to provide variety. Assistance in choosing these plants is available from New Hanover County Zoning Inspections or the Agricultural Extension Service.
6. Trees should be used only in conjunction with at least one row of shrubs or solid fence.