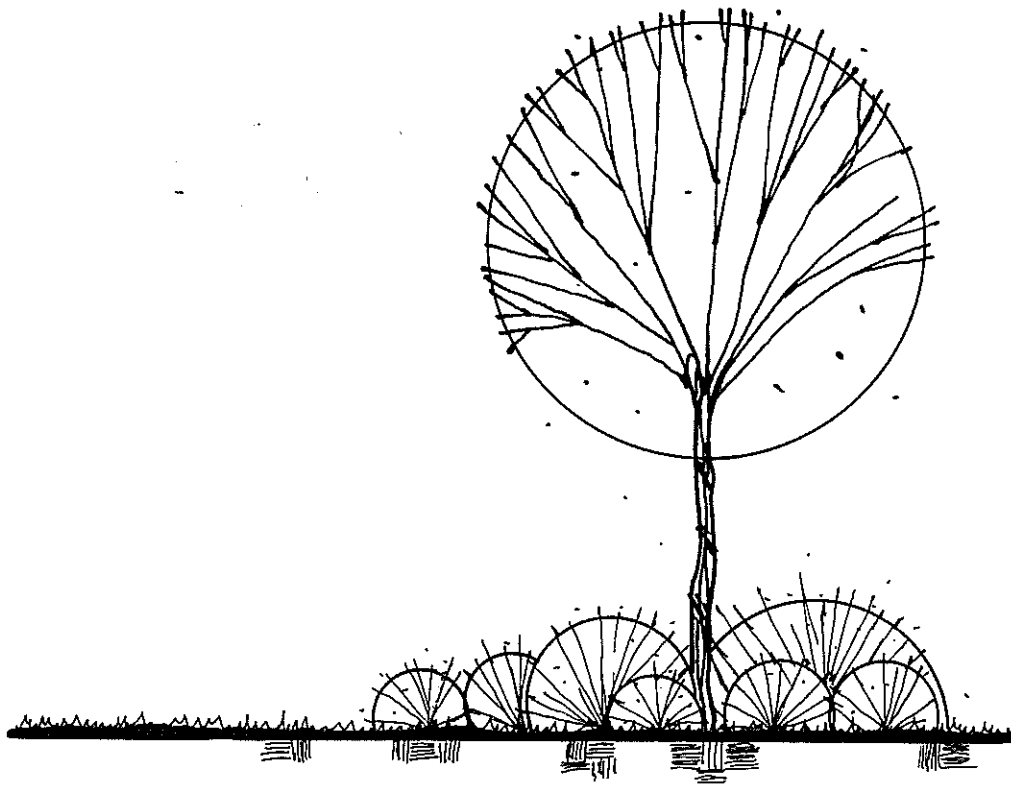


TREE AND PLANT MATERIALS FOR LANDSCAPING



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

Figures

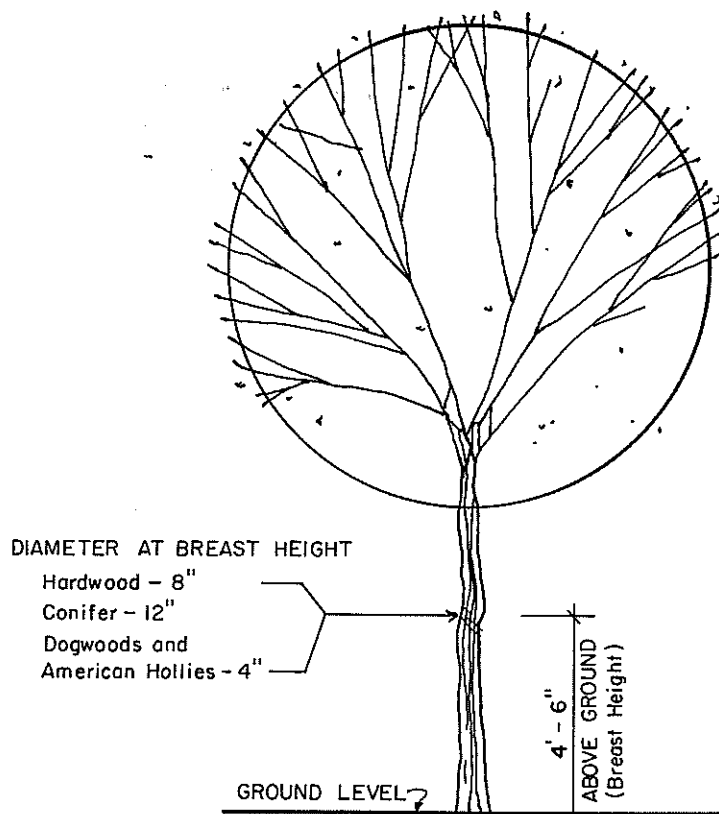
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RETENTION OF EXISTING VEGETATION

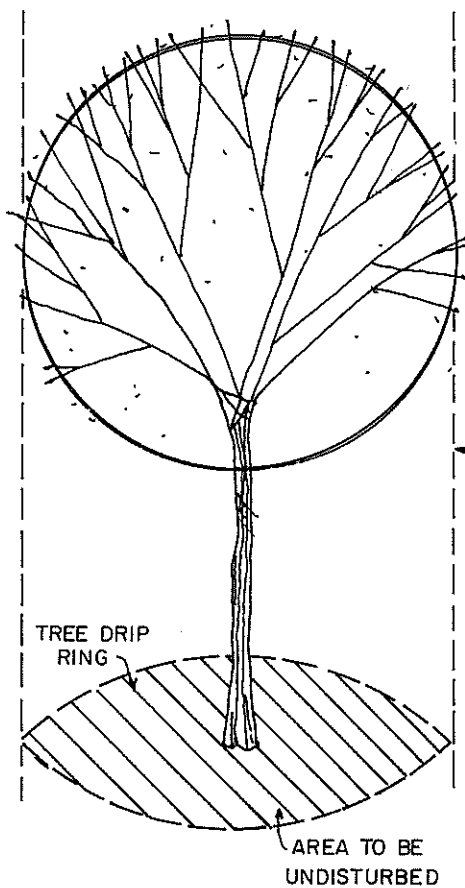
EXISTING TREE TO BE PRESERVED



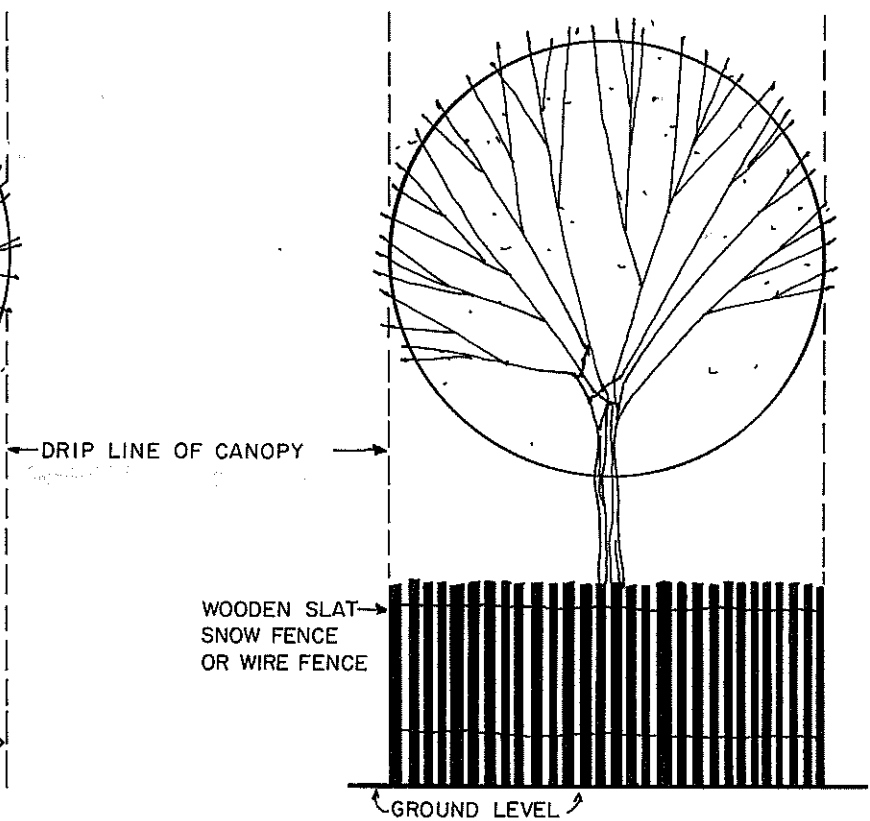
NOTE: All trees in a required buffer greater than 8" DBH must be retained.

PROTECTION OF EXISTING TREES DURING CONSTRUCTION

EXISTING TREE
TO BE PROTECTED



REQUIRED METHOD
OF PROTECTION

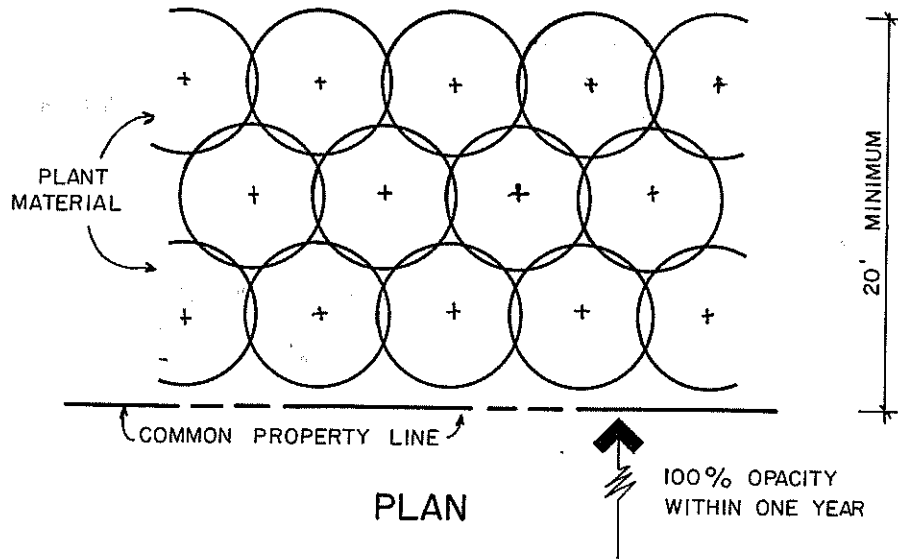


NOTE: If a protected tree is substantially damaged or destroyed or dies within three years after completion of construction, then replacement trees shall be planted on the site with a total diameter equal to twice the diameter of the protected tree. For instance, if a 16" diameter tree is cut down, eight 4" trees will be replanted.

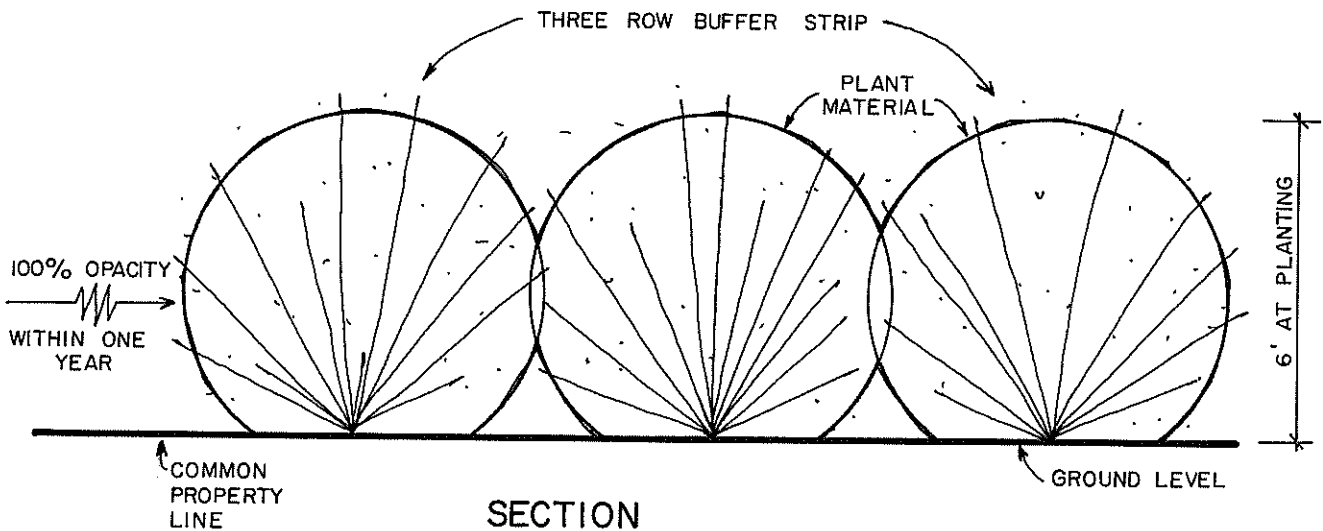
EXAMPLE OF PLANTED BUFFER STRIP

NOT TO SCALE

THREE ROW SCREEN



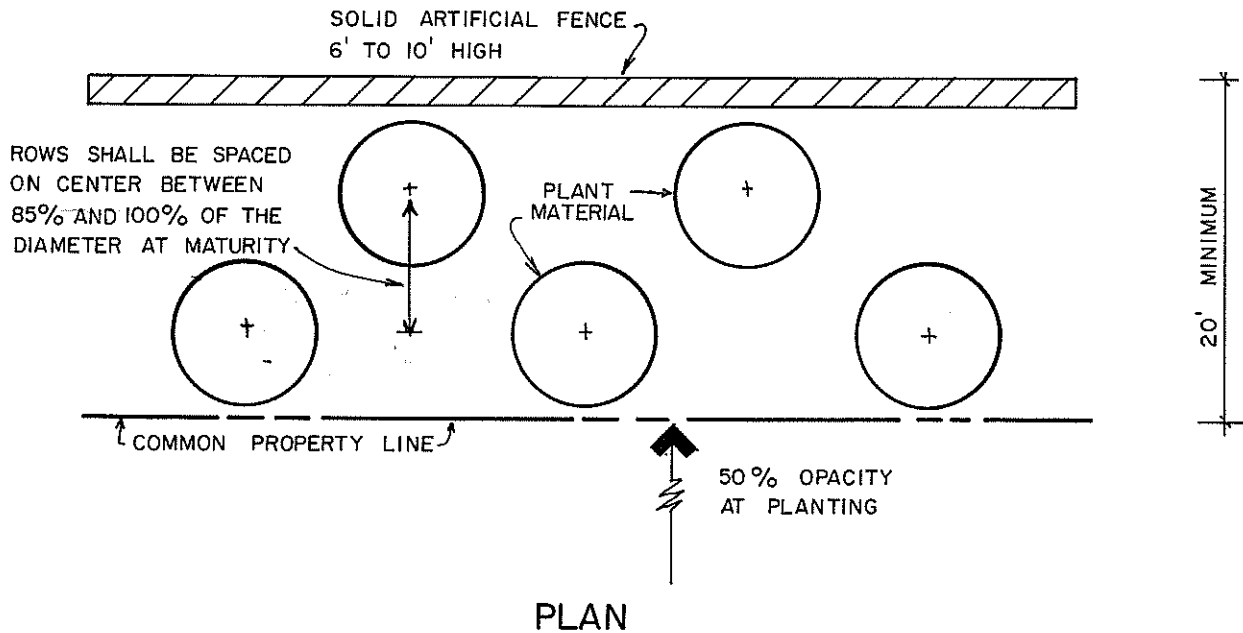
NOTE: See Tables 1 and 2 for spacing requirements of plants.



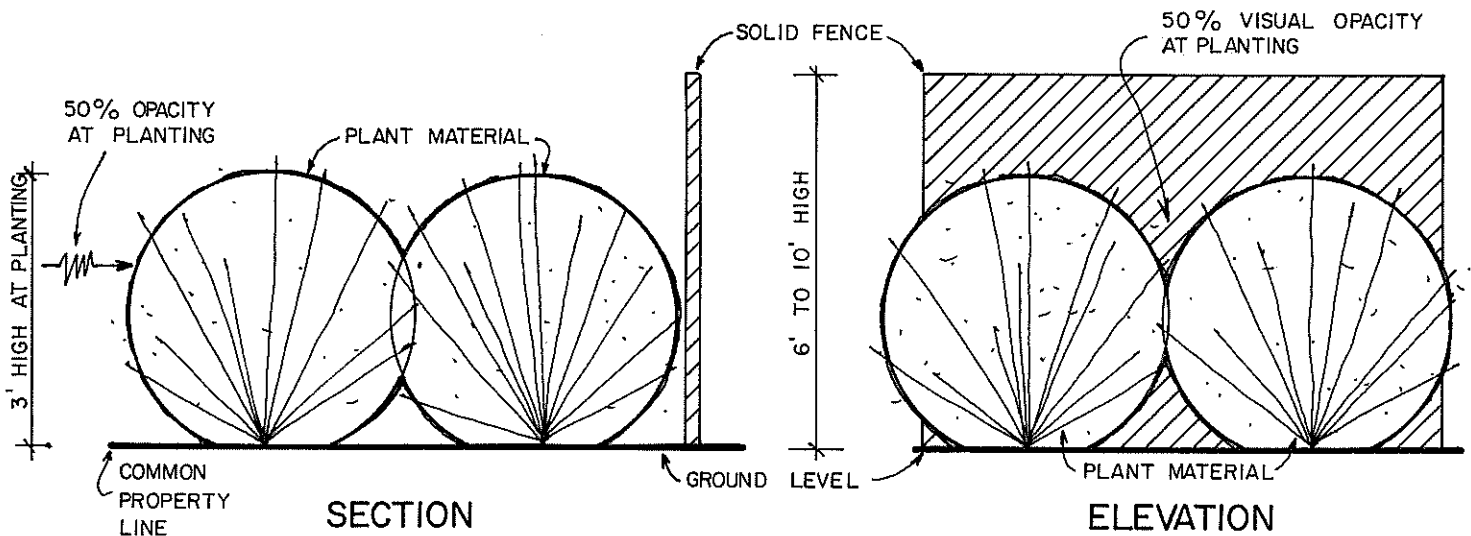
PLANT PLACEMENT FOR SOLID ARTIFICIAL FENCE

NOT TO SCALE

THREE ROW SCREEN



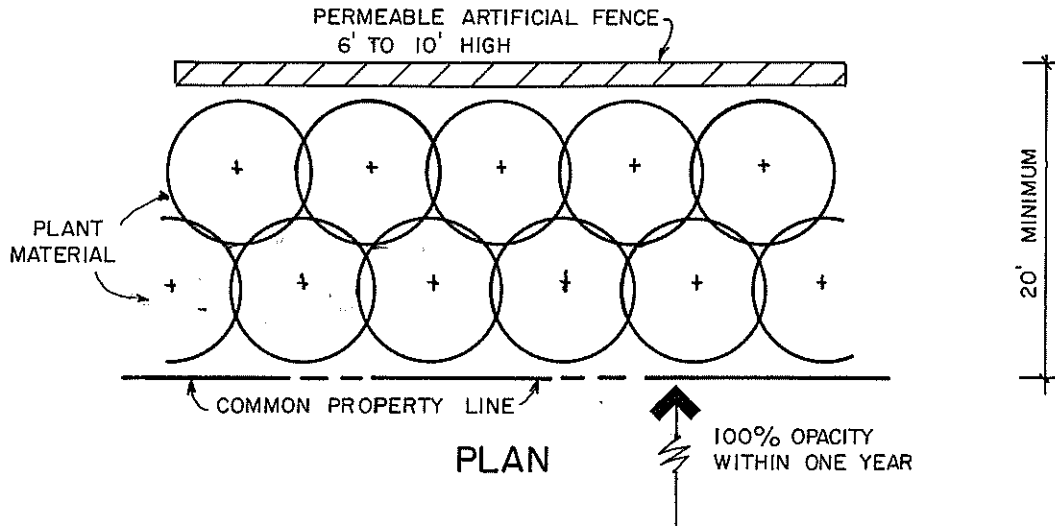
NOTE: See Tables 1 and 2 for spacing requirements of plants.



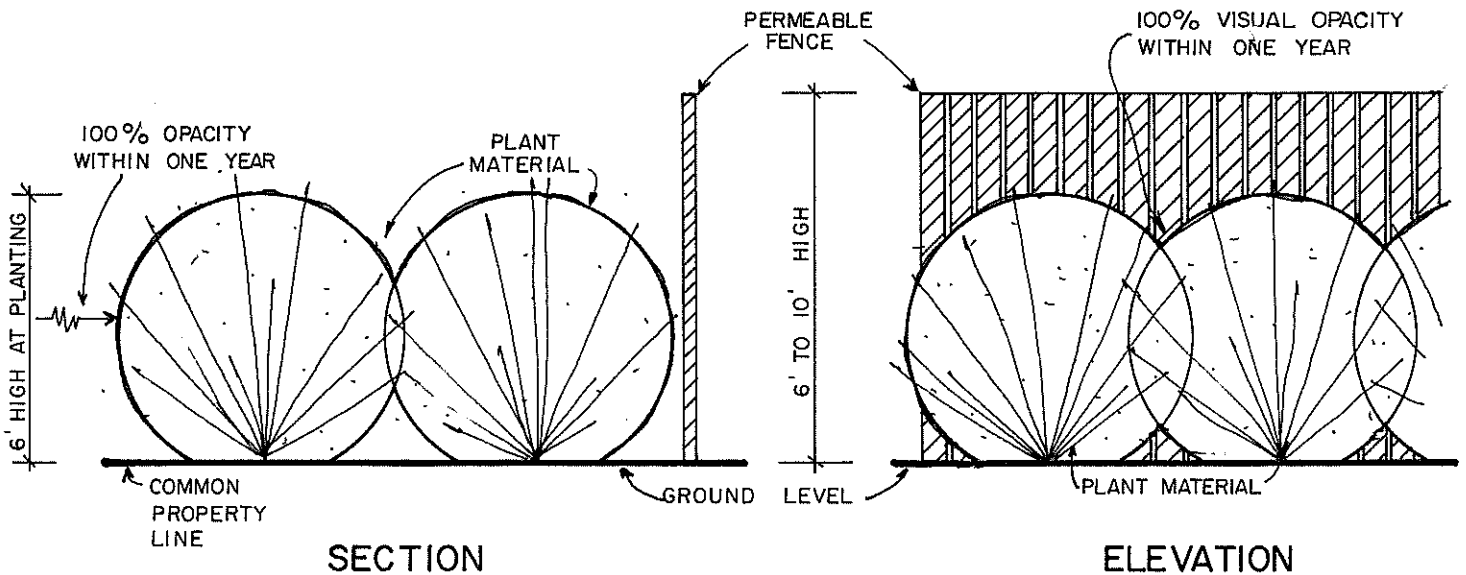
PLANT PLACEMENT FOR PERMEABLE ARTIFICIAL FENCE

NOT TO SCALE

THREE ROW SCREEN

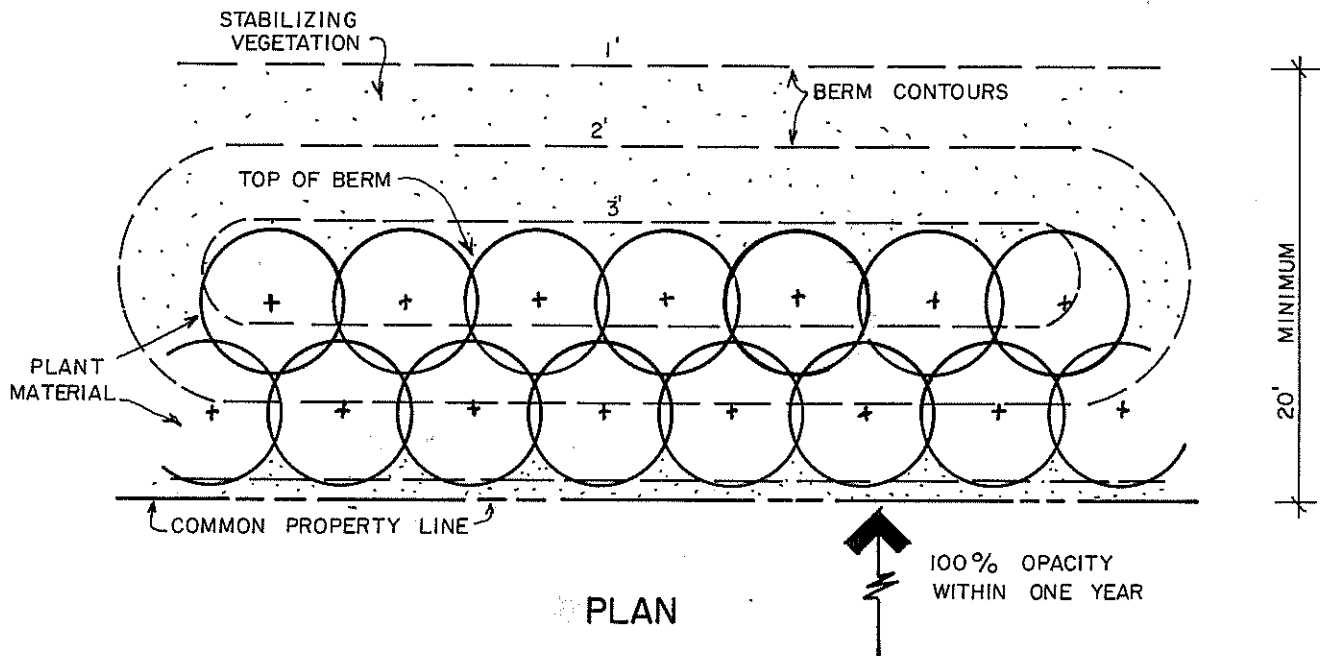


NOTE: See Tables 1 and 2 for spacing requirements of plants.

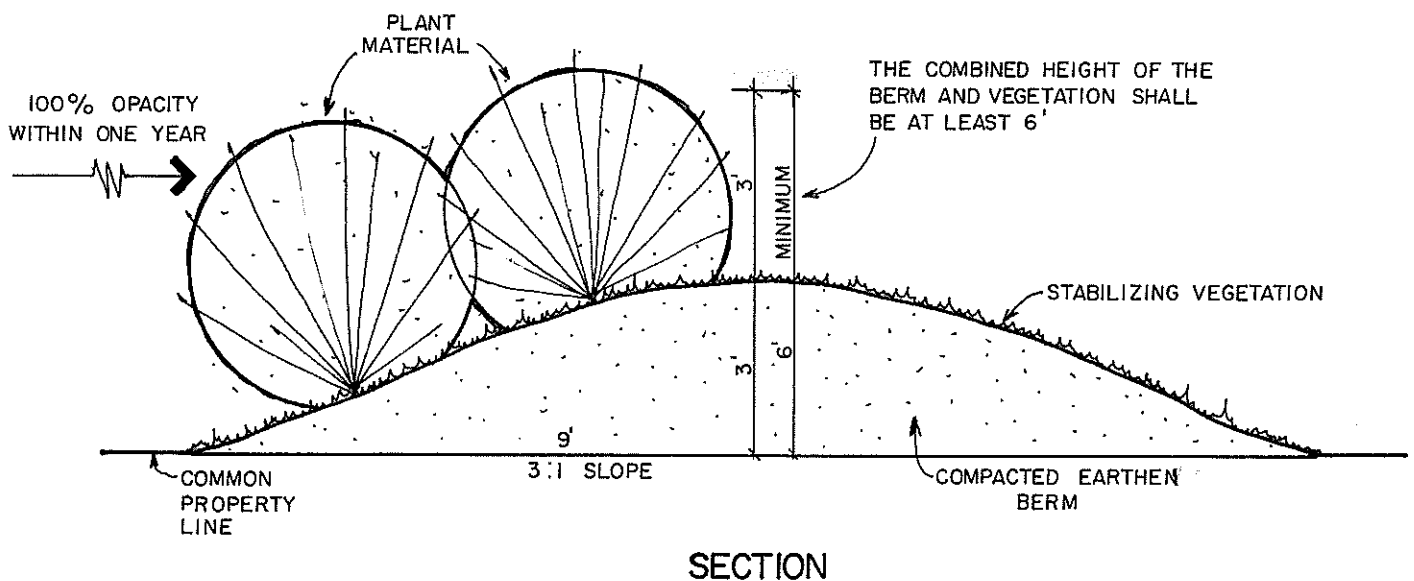


EXAMPLE OF BERM WITH VEGETATION

NOT TO SCALE

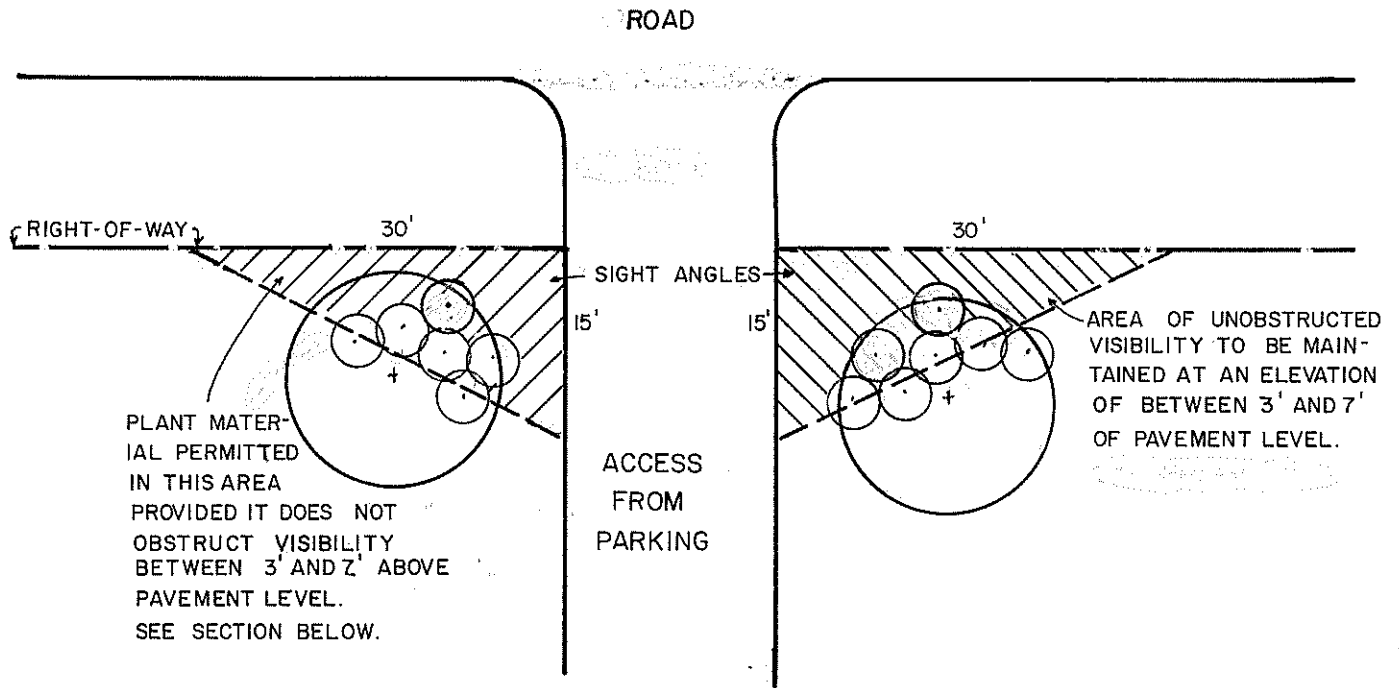


NOTE: See Tables 1 and 2 for spacing requirements of plants.

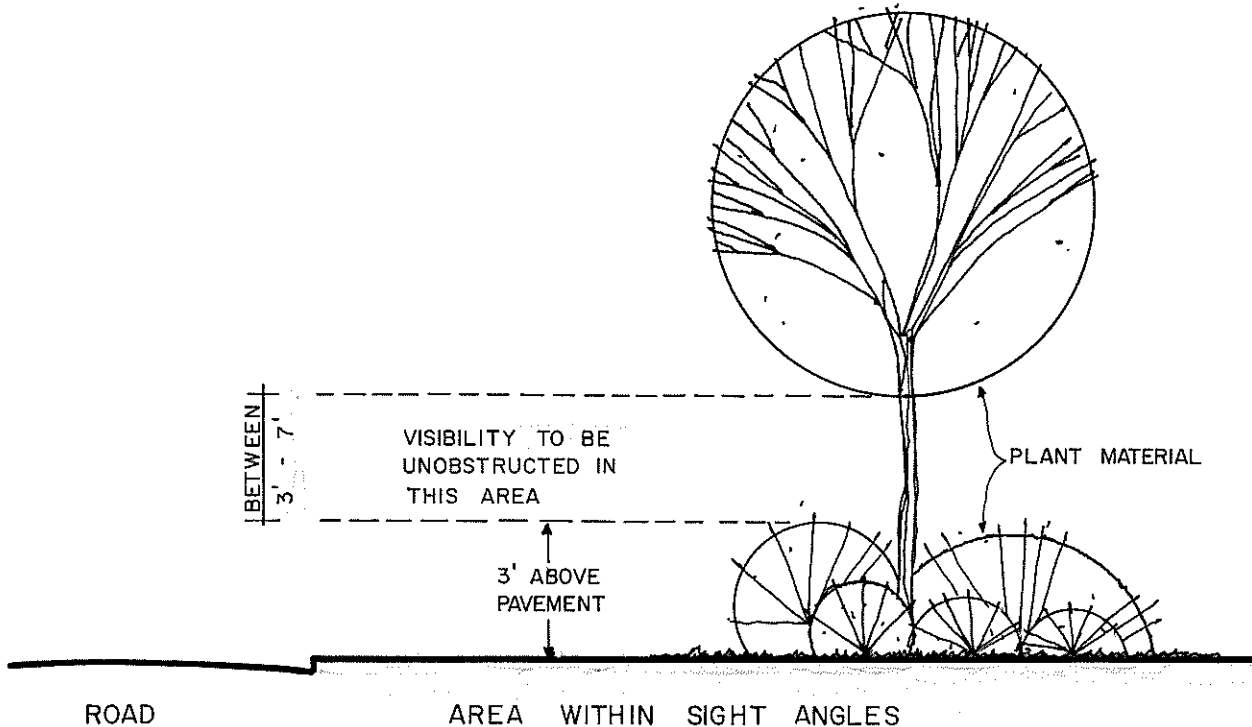


NOTE: The slope of the berm shall be stabilized with vegetation and no steeper than 3:1.

SIGHT ANGLES AT ROAD INTERSECTIONS



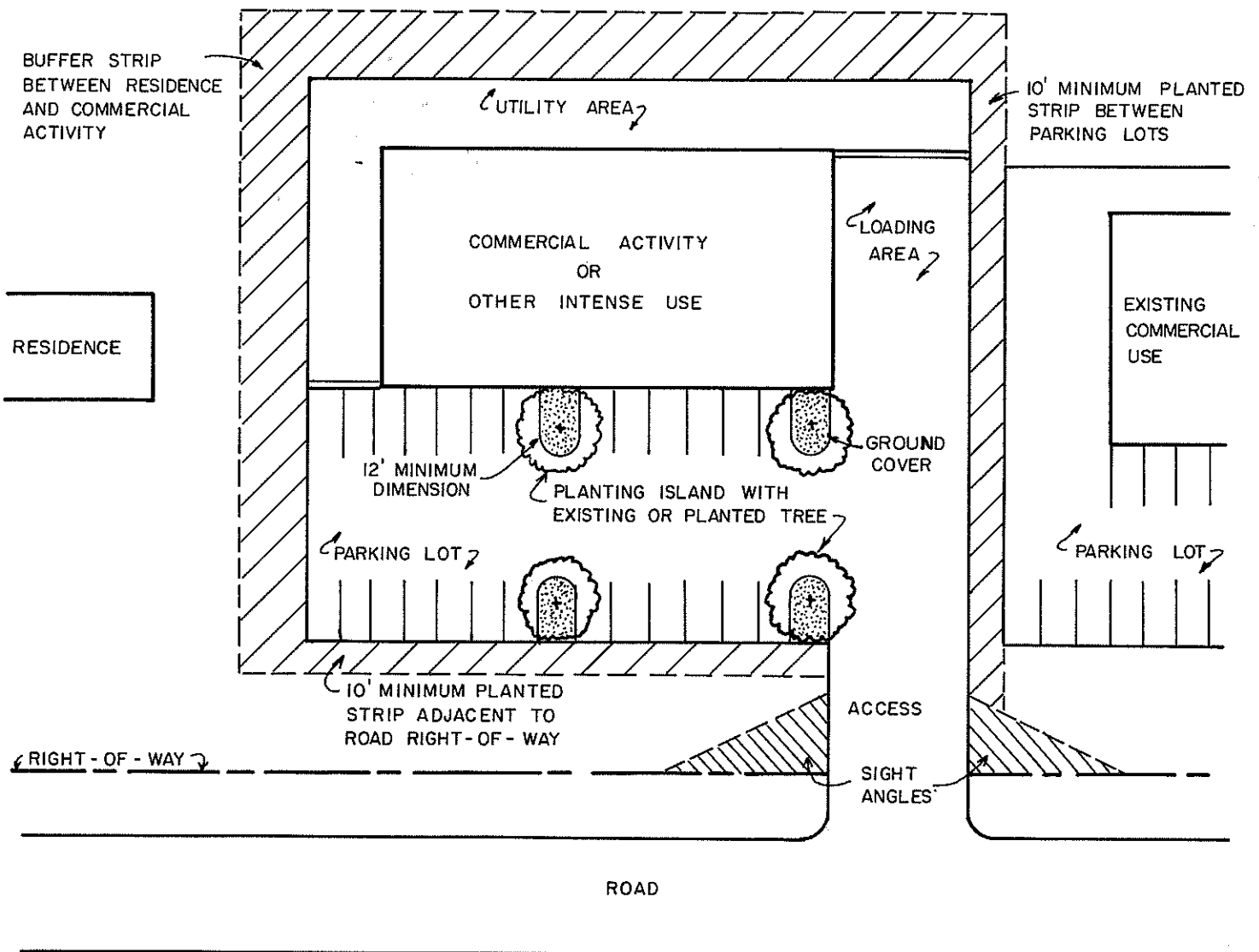
PLAN VIEW



SECTION

EXAMPLE OF COMMERCIAL USE WITH BUFFER STRIPS

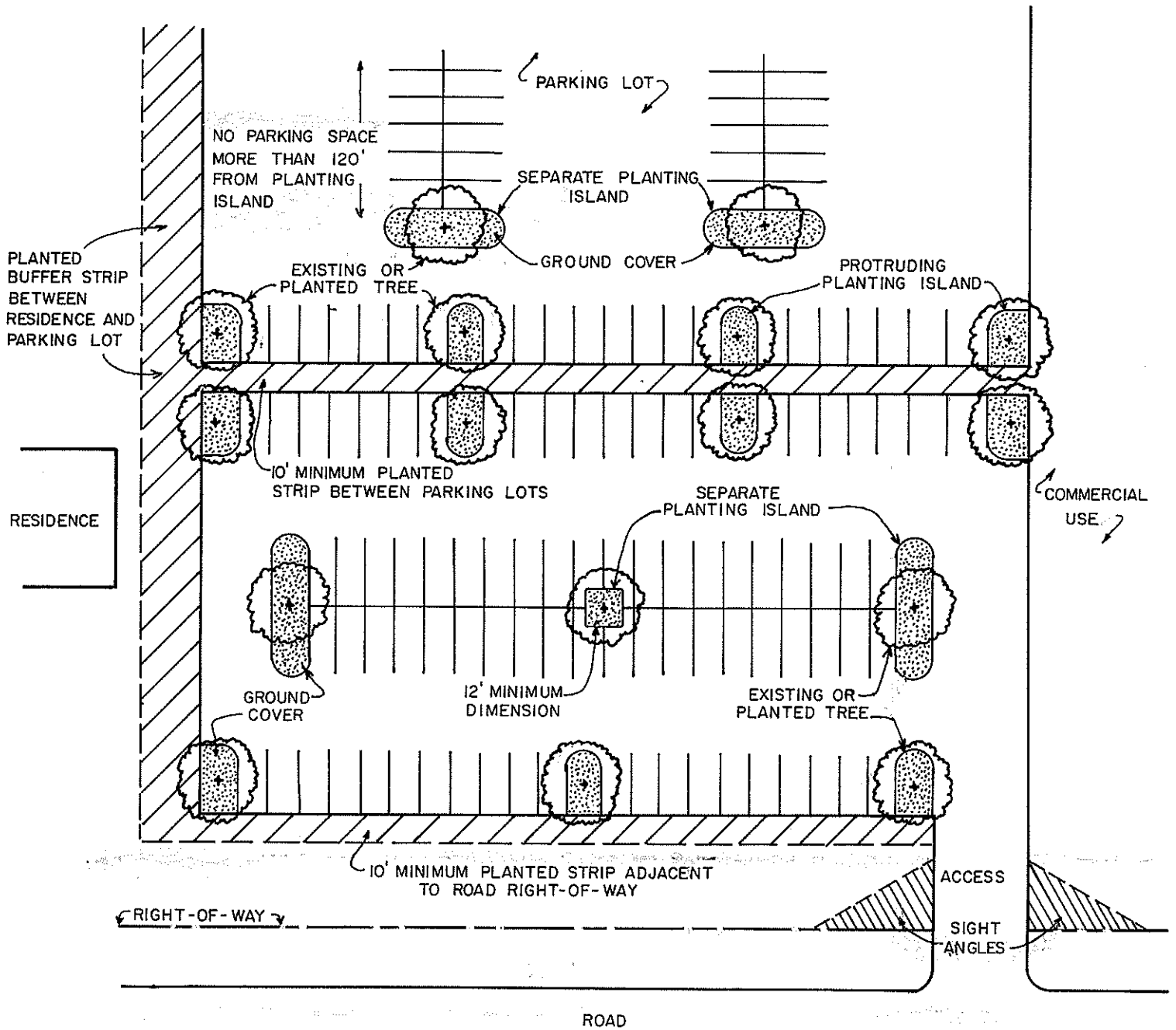
SCALE: 1" = 50'



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

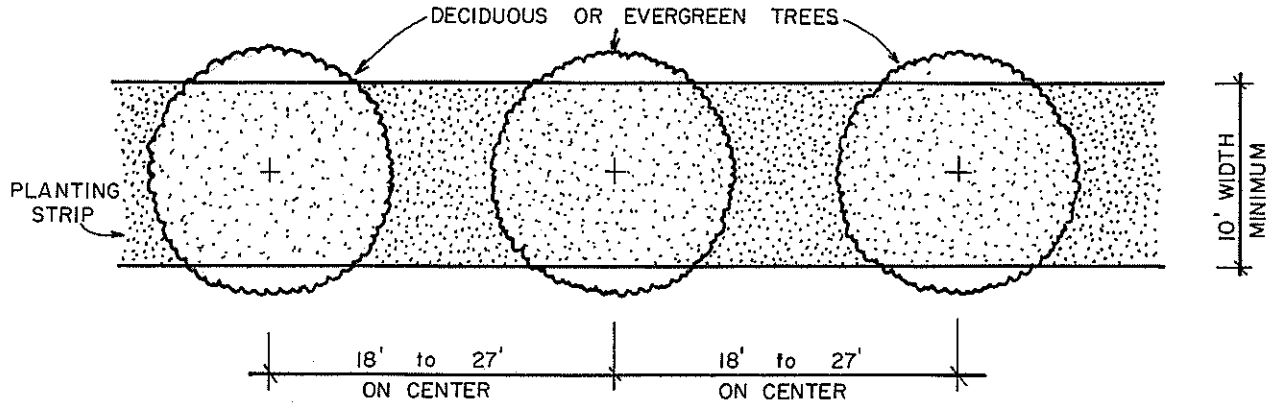
SCALE: 1" = 50'



NOTE: Interior landscaping equals 8% of parking lot/vehicular use area.

PARKING LOT PERIMETER PLANTING STRIPS

SCALE: 1" = 10'



PLANTING ISLANDS

SCALE: 1" = 5'

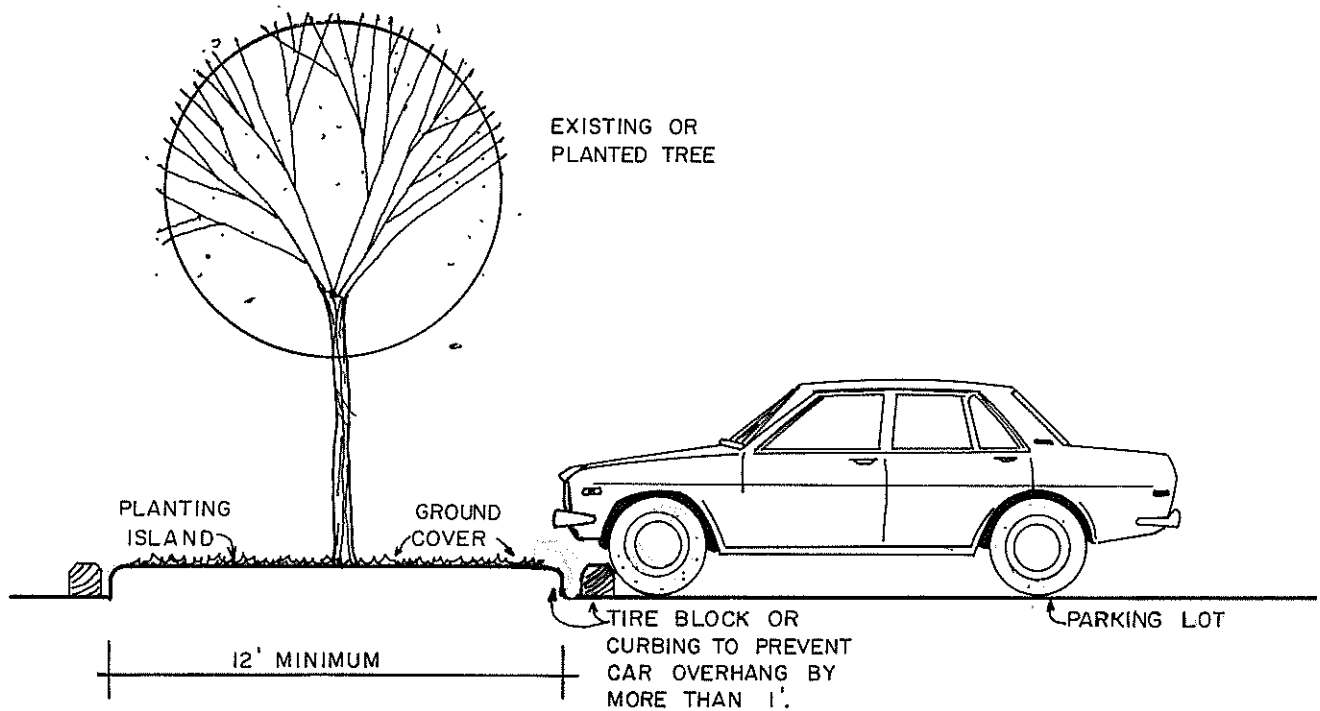


Table 1: Screening Materials - Shrubs

Name	At Maturity Average Height (H) Spread (S)	Maximum Plant Spacing				Growth Rate	Notes
		For One Row		For Two-Three Rows			
		100% opacity	50% opacity	100% opacity	50% opacity		
<i>Cleyera japonica</i> Japanese Cleyera	8'-10' (H) 6' (S)	3' apart	8' apart	3.3' apart	16' apart	M	needs to be pruned, intolerant of wet sites, tolerates full shade
<i>Elaeagnus pungens</i> Thorny Elaeagnus	10'-15' (H) 14' (S)	7' apart	18.7' apart	8.7' apart	37.3' apart	R	requires pruning, tolerates salt
<i>Ilex cornuta</i> Chinese Holly	8'-10' (H) 20' (S)	10' apart	26.7' apart	12.7' apart	53.3' apart	R	tolerates salt & drought
<i>Ilex x 'Nellie R. Stevens'</i> Nellie R. Stevens Holly	15'-20' (H) 10' (S)	5' apart	13.3' apart	6' apart	26.7' apart	R	drought tolerant
<i>Ilex vomitoria</i> Yaupon Holly	10'-15' (H) 9' (S)	4.5' apart	12' apart	5.3' apart	24' apart	M	tolerates salt & heavy pruning
<i>Illicium anisatum</i> Japanese Anise-tree	10'-12' (H) 9' (S)	4.5' apart	12' apart	5.3' apart	24' apart	M	tolerates heavy shade
<i>Ligustrum lucidum</i> Glossy Privet	20'-25' (H) 12' (S)	6' apart	16' apart	7.3' apart	32' apart	R	good wind break
<i>Myrica cerifera</i> Southern Waxmyrtle	10'-15' (H) 9' (S)	4.5' apart	12' apart	5.3' apart	24' apart	M	tolerates salt, wet sites
<i>Nerium oleander</i> Oleander	10'-12' (H) 8' (S)	4' apart	10.7' apart	4.7' apart	21.3' apart	R	tolerates bad soils, salt, heat & pollution - poisonous
<i>Osmanthus x fortunei</i> Fortunes Osmanthus	15'-20' (H) 13' (S)	6.5' apart	17.3' apart	8' apart	34.7' apart	M	needs room, tolerates salt
<i>Photinia serrulata</i> Redtip, Chinese Photinia	15'-20' (H) 13' (S)	6.5' apart	17.3' apart	8' apart	34.7' apart	R	intolerant of wet sites, <i>Photinia glabra</i> (Japanese Photinia) is acceptable
<i>Pittosporum tobira</i> Japanese Pittosporum	10'-12' (H) 12' (S)	6' apart	16' apart	7.3' apart	32' apart	S	tolerates sandy soil & hot, dry sites
<i>Podocarpus macrophyllus</i> Chinese Podocarpus	10'-15' (H) 5' (S)	2.5' apart	6.7' apart	2.7' apart	13.3' apart	S	tolerates salt, best in full sun

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

Name	At Maturity Ave. Height (H) Ave. Spread (S)	Maximum Plant Spacing For Two-Three Rows		Growth Rate	Notes
		100% opacity	50% opacity		
<i>X Cupressocypar leylandii</i> Leyland Cypress	60'-70' (H) 17' (S)	16' apart	68' apart	R	withstands heavy pruning
<i>Ilex cassine</i> Dahoon Holly	15'-25' (H) 12' (S)	11' apart	48' apart	M	tolerates salt, wet sites
<i>Ilex latifolia</i> Lusterleaf Holly	20'-30' (H) 12' (S)	11' apart	48' apart	M	drought tolerant, avoid full sun and winds
<i>Ilex opaca 'Savannah'</i> Savannah American Holly	20'-30' (H) 18' (S)	17' apart	72' apart	S	tolerates air pollution, avoid dry windy sites
<i>Juniperus virginiana</i> Eastern Redcedar	30'-40' (H) 16' (S)	15' apart	64' apart	M	tolerates salt, poor soils
<i>Magnolia grandiflora</i> Southern Magnolia	50'-60' (H) 35' (S)	34' apart	140' apart	M	needs room, tolerates wet sites
<i>Prunus caroliniana</i> Carolina Cherrylaurel	20'-30' (H) 20' (S)	19' apart	80' apart	R	tolerates heavy pruning

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
 M = moderate - from 1' to 2' per year
 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.

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 *
Cornus florida - Dogwood *
Cunninghama lanceolata - Chinafir
Diospyrus virginiana - Common Persimmon
Eriobotrya japonica - Loquat
Ficus carica - Common Fig
Fraxinus americana - White Ash
Ginkgo biloba - Ginkgo
Gleditsia triacanthos inermis - Thornless Honeylocust
Koelreuteria paniculata - Goldenraintree
Lagerstroemia indica - Crape Myrtle
Liquidambar 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 Euonymous
Hedera helix - English Ivy
Hypericum calycinum - Aaron'sbeard
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.